

OLDEST BEE PAPER
IN AMERICA

THE WEEKLY

ESTABLISHED
IN 1861

BEE JOURNAL

DEVOTED TO THE INTERESTS OF HONEY PRODUCERS.

ESTABLISHED IN
1861.

Chicago, Ill., August 13, 1884.

VOL. XX.—No. 33.

THE WEEKLY EDITION

OF
THE AMERICAN
BEE JOURNAL

PUBLISHED BY

THOMAS C. NEWMAN,

EDITOR AND PROPRIETOR.

925 WEST MADISON ST., CHICAGO, ILL.

Weekly, \$2 a year; Monthly, \$1.

PREMIUM.—Any one sending one new subscription for the Weekly, or two for the Monthly, for one year, besides their own subscription for a year for the Weekly, will be entitled to a copy of "Bees and Honey," bound in paper.

The receipt for money sent us will be given on the address label on every paper. If not given in two weeks after sending the money, write us a Postal card, for something must be wrong about it.

Any person sending a club of six, is entitled to an extra copy (like the club), sent to any address desired. Sample copies furnished free.

Papers are stopped at the expiration of the time paid for, unless requested to be continued.

FOREIGN POSTAGE, EXTRA:

To Europe—Weekly, 50 cents; Monthly, 12 cents.
To Australia—Weekly, \$1; Monthly, 24 cents.

George Neighbour & Sons, London, England, are our authorized agents for Europe.

Entered at the Chicago P. O. as Second Class Matter.

ADVERTISING RATES.

20 cents per line of space, each insertion,

For either the Weekly or Monthly Editions.

A line of this type will contain about 7 words; TWELVE lines will occupy ONE-INCH of space. Transient Advertisements payable in advance. Editorial Notices, 50 cents per line.

Advertisements may be inserted one, two or four times a month, if so ordered, at 20 cents per line, space, for each insertion.

Advertisements withdrawn before the expiration of the contract, will be charged the full rate for the time the advertisement is inserted.

THOMAS G. NEWMAN,

925 West Madison Street., Chicago, Ill.

Topics Presented in this Number.

A Brief Sermon on Cranks.....	517
A Good Honey Flow.....	523
A Good Investment.....	523
A Long Hive.....	524
An Enemy to Borage.....	520
Apiary Register.....	525
Are Bees an Injury to Fruit?....	515
A Timely Chat About Bees.....	522
Authorship of the Pollen Theory.	524
Bee-Culture in Texas.....	522
Bees as Comb Builders.....	520
Bees Not Working.....	523
Convention Hand-Book.....	525
Convention Notices.....	517, 524
Correspondence.....	518
Discouraged but Determined....	523
Editorial Items.....	515 to 517
Good Honey Season.....	523
Honey and Beeswax Market.....	517
"Honor to Whom Honor is Due"	522
Introducing Queens—My Experi- ence.....	521
Large Crop of Basswood Honey..	524
Local Convention Directory.....	516
Main Honey Season Past.....	523
More Honey than for Three Years	524
Not More than Half a Crop.....	523
Philadelphia Bee-Keeper's Picnic	520
Poorest Season since 1869.....	523
Prevention of After-Swarms....	522
Profitable Use of Comb Founda- tion.....	521
Removing Surplus Honey.....	524
Selections from Our Letter Box..	523
Shall we Breed Hybrid Bees?....	519
Special Notices.....	524
Stinging Bees of India.....	516
Subscription Credits.....	525
Swarm Separators.....	523
The Hibernation of Bees.....	518
The Marketing of Honey.....	525
The Weather.....	515
Too Much Tare—Is it Just?....	517
Traveling Sweetness.....	517
Weight of Extracted Honey.....	524
What and How.....	524
Wintering Bees—A Question....	524

CLUBBING LIST FOR 1884.

We will supply the *American Bee Journal* one year, and any of the following Books, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

Price of both. Club

The Weekly Bee Journal.....	\$2 00..	\$2 00..
and Cook's Manual, latest edition	3 25..	3 00
Bees and Honey (T.G.Newman) cloth.....	3 00..	2 75
Bees and Honey (paper covers).....	2 75..	2 50
Binder for Weekly Bee Journal.....	2 75..	2 50
Apiary Register for 200 colonies.....	3 50..	3 25
Dzierzon's New Bee Book (cloth).....	4 00..	3 00
Dzierzon's New Book (paper covers).....	3 50..	2 75
Quinby's New Bee-Keeping.....	3 50..	3 25
Langstroth's Standard Work.....	4 00	3 75
Root's A B C of Bee Culture (cloth).....	3 25..	3 10
Alley's Queen Rearing.....	3 00..	2 75
Scribner's Lumber and Log Book.....	2 35..	2 25
Fisher's Grain Tables.....	2 40..	2 25
Moore's Universal Assistant.....	4 50..	4 25
Honey as Food & Medicine, 100 Copies	4 50..	4 25
Blessed Bees.....	2 75..	2 50
King's Bee-Keeper's Text Book.....	3 00..	2 75
The Weekly Bee Journal one year and and Gleanings in Bee-Culture (A.I.Root).....	3 00..	2 75
Bee-Keeper's Magazine (A.J.King).....	3 00..	2 75
Bee-Keeper's Guide (A.G.Hill).....	2 50..	2 35
Kansas Bee-Keeper.....	3 00..	2 75
The Apiculturist, (Silas M. Locke).....	3 00..	2 75
British Bee Journal.....	3 75..	3 50
The 7 above-named papers.....	8 25..	7 00

The *Monthly Bee Journal* and any of the above, \$1 less than the figures in the last column.

The next meeting of the Bee-Keeper's Association of Boone and Hendricks counties will be held at H. Coxe's apiary, 1¼ miles east of Fayette, Boone County, Ind., on Saturday, Aug. 16, 1884. O. KNOWLTON.

Sample Copies of the *AMERICAN BEE JOURNAL* will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Preparation of Honey for the Market, including the production and care of both comb and extracted honey, instructions on the exhibition of bees and honey at Fairs, etc. This is a new 10 cent pamphlet, of 32 pages.

DADANT'S FOUNDATION

is attested by hundreds of the most practical and disinterested bee-keepers to be the cleanest, brightest, quickest accepted by bees, least apt to sag, most regular in color, evenness and neatness of any that is made. It is kept for sale by Messrs.

A. H. NEWMAN, Chicago, Ill.,
C. F. MUTH, Cincinnati, O.,
JAMES HEDDON, Dowagiac, Mich.,
DOUGHERTY & McKEE, Indianapolis, Ind.,
CHAS. H. GREEN, Berlin, Wis.,
CHAS. HERTEL, Jr., Freeburg, Ill.,
W. M. BALLANTINE, Sago, O.,
E. L. ARMSTRONG, Jerseyville, Ill.,
ARTHUR TODD, Germantown, Philadelphia, Pa.,
E. KRETCHMER, Coburg, Iowa,
E. F. SMITH, Smyrna, N. Y.,
C. F. DAILE, Mortonsville, Ky.

and numbers of other dealers.

Write for SAMPLES FREE and price list of supplies, accompanied with

150 COMPLIMENTARY.

and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1883.

We guarantee every inch of our Foundation equal to sample in every respect.

CHAS. DADANT & SON,

5AB1y HAMILTON, Hancock Co., ILL.

VALUABLE ORIGINAL PATENTS.

BINGHAM & HETHERINGTON
UNCAPPING KNIFE.



PATENTED, MAY 20, 1878.



The Original
BINGHAM
Bee Smoker

Patented, 1878.

Prof. Cook, in his valuable Manual of the Apiary, states that "Mr. Bingham was the first to improve the old Quinby smoker by establishing a direct draft." Five years of persistent effort has demonstrated that no one but Bingham has been able to improve a Bingham smoker. Hundreds of Bingham smokers have been in use five years, and are yet in working order. They burn lots of blocks and chips and stuff, and make lots of smoke and comfort, and have no dampers or match-box attachments, as they never go out or fail to blow smoke up or down or sideways, much or little, swift or slow, just as you please, any or all the time; top up or down, they always go!

Bee-keepers will save money and vexation by buying genuine Bingham smokers and Bingham & Hetherington Uncapping-Knives first. We neither make nor handle any other supplies; but of these we are the original inventors, and only legal makers, and have had over 45,000 in use from one to five years, and receiving but one letter of complaint.

With European and American orders already received for over 3,000, there is evidence that 1884 with us is not likely to be an idle one. Also that such goods as we make have met the advanced wants of the most advanced bee-keepers in Europe and America.

For mail rates and testimonials, send card. To sell again, send for dozen rates to

BINGHAM & HETHERINGTON,
6A2B1f ABRONIA, MICH.

Vandervort Foundation Mill.

6 Inch, Price, \$25.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

ALFRED H. NEWMAN.

925 West Madison Street. CHICAGO, ILL.

BOOKS!

Sent by mail, on receipt of price, by

THOMAS G. NEWMAN,

925 West Madison Street, CHICAGO, ILL.

On dozen or half-dozen lots of one kind, we allow 25 per cent. discount, and prepay postage. Special rates on larger quantities, given upon application.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by THOMAS G. NEWMAN.—It is "fully up with the times," in all the various improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. It embraces the following subjects: Ancient History of Bees and Honey—Locating an Apiary—Transferring—Feeding—Swarming—Dividing—Extracting—Queen Rearing—Introducing Queens—Italianizing—Bee Pasturage a Necessity—Quieting and Handling Bees—The Management of Bees and Honey at Fairs—Marketing Honey, etc. 220 profusely-illustrated pages. Price, bound in cloth, \$1.00; 2 copies for \$1.80; 3 copies for \$2.55; 5 for \$4.00; 10 for \$7.50. Paper covers, 75 cents; 2 copies for \$1.40; 3 copies for \$2.00; 5 for \$3.00; 10 for \$5.00.

The Apiary Register, by THOMAS G. NEWMAN.—A Record and Account Book for the Apiary, devoting 2 pages to each colony, ruled and printed, and is so arranged that a mere glance will give its complete history. Strongly bound in full leather. Price, for 50 colonies, \$1.00; for 100 colonies, \$1.25; for 200 colonies, \$1.50.

Honey as Food and Medicine, by THOMAS G. NEWMAN.—It gives the various uses of Honey as Food; recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc. Also, Honey as Medicine, with many valuable recipes. It is intended for consumers, and should be liberally scattered to help in creating a demand for honey. Price, for either the English or German edition, 5 cents—one dozen, 40 cents—100 for \$2.50—500 for \$10.00—1,000 for \$15.00.—If 100 or more are ordered, we will print the bee-keeper's card (free of cost) on the cover.

Bee-Keepers' Convention Hand Book, by THOMAS G. NEWMAN.—It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for discussion—List of Premium for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents.

Why Eat Honey? by THOMAS G. NEWMAN.—This Leaflet is intended for distribution in the Bee-keeper's own locality, in order to create a Local Market. Price, 50 cents per 100; 500 copies for \$2.25; 1,000 copies for \$4.00. When 200 or more are ordered at one time, we will print the honey-producer's name and address FREE, at the bottom. Less than 200 will have a blank where the name and address can be written.

Preparation of Honey for the Market, including the production and care of both Comb and Extracted Honey, and Instructions on the Exhibition of Bees and Honey at Fairs, etc., by THOMAS G. NEWMAN. This is a chapter from "Bees and Honey." Price, 10c.

Swarming, Dividing and Feeding Bees.—Hints to Beginners, by THOMAS G. NEWMAN. A chapter from "Bees and Honey." Price 5c.

Bee Pasturage a Necessity, by THOMAS G. NEWMAN.—Progressive views on this important subject; suggesting what and how to plant.—A chapter from "Bees and Honey." 26 engravings. Price, 10c.

Bees in Winter, by THOMAS G. NEWMAN.—Describing Chaff-packing, Cellars and Bee-Houses. A chapter from "Bees and Honey." Price 5c.

Bienen Kultur, by THOMAS G. NEWMAN.—In the German language. Price, in paper covers, 40 cents, or \$3 per doz.

Bee-Keepers' Guide, or Manual of the Apiary, by PROF. A. J. COOK.—It is elegantly illustrated, and fully up with the times on every subject that interests the bee-keeper. It is not only instructive, but interesting and thoroughly practical. It comprises a full delineation of the anatomy and physiology of Bees. Price, \$1.25.

Quinby's New Bee-Keeping, by L. C. ROOT.—Its strength is plain and forcible, making its readers realize the fact that the author is master of the subject. Price, \$1.50.

A B C of Bee-Culture, by A. I. ROOT.—Embraces everything pertaining to the care of the Honey-Bee, and is valuable to the more advanced bee-keeper, as well as the beginner. Cloth, \$1.25; paper, \$1.

Blessed Bees, by JOHN ALLEN.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Price, 75c.

The Hive and Honey-Bee, by REV. L. L. LANGSTROTH.—This is the work of a master, and will always remain a standard. Price, \$2.00.

Dzierzon's Rational Bee-Keeping.—A translation of the master-piece of that most celebrated German authority. Price, bound in cloth, \$2.00; in paper covers, \$1.50.

Queen-Rearing, by HENRY ALLEY.—A full and detailed account of 23 years experience in rearing Queen Bees. The cheapest, easiest and best way of rearing. Price, \$1.

Bee-Keepers' Text Book, by A. J. KING.—A new edition, revised and enlarged. Price, \$1.00, bound in cloth.

Extracted Honey; Harvesting, Handling and Marketing.—By CHAS. DADANT & SON.—Details their management. Price, 15c.

Practical Hints to Bee-Keepers, by CHAS. F. MUTH.—Gives his views on the management of bees. Price, 10c.

Dzierzon Theory.—The fundamental principles of Dzierzon's system of apiculture as set forth by Berlepsch. It was translated by the late Samuel Wagner. Price, 15c.

Dictionary of Practical Apiculture, by PROF. JOHN PHIN.—This gives the correct meaning of nearly 500 apicultural terms. Price, bound in cloth, 50c.

The Hive I Use, by G. M. DOOLITTLE.—Details his management of bees. Price 5c.

Foul Brood, by A. R. KOHNKE.—Its origin and cure. Price, 25c.

Moore's Universal Assistant, and Complete Mechanic.—Contains over 1,000,000 industrial facts, calculations, processes, trade secrets, legal items, business forms, etc. Price, \$2.50.

Kendall's Horse Book.—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has many good recipes, etc. Price, 50c., in either English or German.

Food Adulteration.—What we eat and should not eat. This book should be in every family. Price, 50c.

Scribner's Lumber and Log Book.—Gives measurement of all kinds of lumber, logs and planks; wages, rent, etc. Price, 35c.

Fisher's Grain Tables.—For casting up the price of grain, produce and hay; wood measurer, ready reckoner, tables for plowing, etc. Price, 40c.

Hand-Book of Health, by Dr. Foote. Rules for eating, drinking, sleeping, bathing, working, dressing, etc. Price, 25c.

Emerson Binders, made especially for the BEE JOURNAL, and lettered in gold on the back. 75c. for the Weekly; or for the Monthly, 50c. They cannot be sent by mail to Canada.

Constitution and By-Laws, for local Associations, \$2 per 100. The name of the Association printed in the blanks 50c. extra.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, 10c. each, or \$8 per 100.

Poulterer's Guide, for treating diseases of Poultry, etc., by C. J. WARD. Price 25c.

Weekly Bee Journal,

DEVOTED TO THE INTERESTS OF THE PRODUCERS OF HONEY.

VOL. XX.

CHICAGO, ILL., AUGUST 13, 1884.

No. 33.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR.

Every subscriber should carefully preserve the numbers of the BEE JOURNAL for reference. Many an article is worth the price of a year's subscription. When the information therein contained can be readily referred to, it is doubly valuable. We can, therefore, do our readers no greater service than to recommend them to procure a Binder, and file away each number as fast as received.

We regret to have to note the death of one of our subscribers and correspondents, F. M. Cheney, of Sutton, N. H. He went to Tennessee last spring to take charge of an apiary for H. E. Andrews, of about 100 colonies, and died about the middle of last month of malarial fever.

We regret to learn that Mr. J. T. Wilson's house was burned early on the morning of Aug. 5, at Mortonsville, Ky. He writes us that many bee-keepers are owing him, and with this calamity he is crippled financially. Those who owe him should at once send him the necessary funds to help him in this, his "hour of need."

The aphidæ that trouble pot plants are green, and the tender new growth on plants often becomes completely covered with them before they are noticed. These lice are often called the ants' cows, because the ants follow them to gather a honey that exudes from their bodies; there is a white aphid that attacks the roots of plants; the ants follow this also.—*Exch.*

Are Bees an Injury to Fruit?

Mr. L. A. Lowmaster, of Belle Vernon, O., has sent us a long extract from the New York *Sun*, containing the usual charges against the bees, i. e., that they are an injury to fruit growers, the following being the last paragraph:

Admitting that the accusations made against bees in regard to their destructiveness of fruits, have been fully established, the question naturally arises as to the rights of the bee-keepers in this matter. Has any man a right to raise and keep an insect that is likely to annoy his neighbors in various ways, in addition to destroying his fruits? We believe this question has already been taken into the courts, and decided against the bees, and it will, no doubt, be taken there many times in the future, if the bee-keepers continue to increase their stock of bees as rapidly in the next few years as they have in the past two or three decades. Honey is no doubt a very desirable luxury, but scarcely so important, or of so much value to man, as is fruit; and while we admire the "busy bee," and its stores of nectar, there must be a limit even to the multiplication of an ordinarily useful insect.

Mr. Lowmaster asks what we think of the article, and says that it has been copied into many of the leading newspapers, and is doing bee-keepers a serious injury.

It is the old story of re-vamped—assertions without proof—vindictiveness without alloy.

Without the bees, fruit growers would soon be in search of other employment. The value of the bees in fructifying the bloom, by carrying the pollen masses from the male to female flowers, is everywhere acknowledged. Should this war upon the bees be pursued until they become extinct, fruit and flowers would soon also cease to offer food for man and beast, as well as to beautify the face of nature. Then fruit-growers would mourn and wail—having destroyed their best friends, the bees. And the fact that "through ignorance they did it,"

would not offer the least excuse for such insane folly.

The Weather.

Cold weather in every month in the year seems to be the rule, so far. To-day (Aug. 8) when it should be expected to be uncomfortably hot, it is cold enough for an overcoat; in fact we have had but little weather so far that has been what may be called "seasonable." In Europe it seems to be about the same. The London *Journal of Horticulture* of July 28, has the following "notes of the season:"

Although the weather during the latter part of May and beginning of June was dry with bright sunshine, the thermometer sank often at night during that time to 30° and 32°, consequently vegetation made little progress. Large tracts of strawberries are almost totally destroyed through the drought and insects. Plums that promised a great crop have dropped; apples and pears are stunted; gooseberries, where they were not overpruned, are a fair crop; but with the exception of the last-named and currants, the fruit prospects are very poor.

I only removed the feeders from my hives on June 25, as up till that time little or no honey was to be had. On the morning of the 26th it was doubtful whether I had acted wisely in removing the feeders, but a favorable change came, and on the 27th I put on supers, which were at once taken possession of by the bees, which wrought vigorously, especially in the afternoon, as it was too hot at mid-day. On Saturday the thermometer stood at 85° in the shade, but cooling down a little the next five days, when it culminated in a severe thunderstorm and deluge of rain. During that one week the bees increased much in weight, the strong ones completing from 12 to 15 pounds of comb honey in supers, besides storing much in the body of the hive.

Travis county, Texas, has appointed the following committee to represent it in making a Bee and Honey exhibit at the New Orleans Exposition: J. G. Taylor, Chairman; W. W. Madaris, Dr. W. Styles, B. Palmer, and R. J. Kendall.

Local Convention Directory.

1884. Time and place of Meeting.
- Aug. 13.—Northeastern Ky., at Covington, Ky.
G. W. Cree, Sec.
- Aug. 16.—Decatur, at Greensburg, Ind.
Henry Carter.
- Aug. 19.—N.W. Ill. & S.W. Wis. at L. Highbarger's.
J. Stewart, Sec., Rock City, Ill.
- Sept. 1, 2.—W.N.Y. and N.W.Pa., at Jamestown, N.Y.
W. A. Shewman, Sec.
- Sept. 1, 5.—Ohio State, at Columbus, O.
C. M. Kingsbury, Sec.
- Oct. 11, 12.—Northern Mich., at Alma, Mich.
F. A. Palmer, Sec., McBride, Mich.
- Oct. 15, 16.—Northwestern, at Chicago, Ill.
W. Z. Hutchinson, Sec.
- Nov. 25.—Western Mich., at Fremont, Mich.
Geo. E. Hilton, Sec.
- Dec. 3.—Southeastern Mich., at Adrian, Mich.
A. M. Gander, Sec.
- Dec. 10, 11.—Michigan State, at Lansing.
H. D. Cutting, Sec., Clinton, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

The Stinging Bees of India.

The American Edition of the *London Lancet* contains the following account of the effects of severe stinging by the large bee of India—the *Apis Indica*. We do not think that we want any of these bees in America. The Cyprians are bad enough—but for these bees of India (*Apis Indica*), as well as their more irascible cousins of Java (*Apis dorsata*) we have no use. Let them stay where they are. Here are the letters referred to:

To the Editor of *The Lancet*.—As stinging by bees, especially if very severe, is an accident rarely met with, I have thought the following account from my brother-in-law, Mr. Herklots, a coffee planter on the Neilgherry Hills, South India, of severe bee-stings suffered by himself, with the symptoms that followed and the treatment adopted, will be found by you to be sufficiently instructive for insertion in *The Lancet*. You will see by the account that the patient is still suffering from the effects of the stings.

G. HERKLOTS VOS, M. R. C. S. Eng.,
House-Surgeon, Training Hospital, Tottenham, N.

"Coonoor, Madras, March 7, 1884.

"About Sep. 24, last, I went out with a friend to visit some property some three miles distant. We went to a steep hill-side to lay out a trace for a new road. While the men were cutting the track, or, rather, clearing the brushes away, my friend and I were looking about to see which would be the best line for the road. I took up the staff, and went with it to a small rock, when the overseer, who was by, said, 'Sir, there are bees about.' I did not perceive the force of this statement at once; but, to my surprise, I found the coolies gliding away with great caution and unusual rapidity, and leaving me. The bees, which were of a large variety (*Apis Indica*), were now flying angrily about me, and occasionally coming right at my face.

I had let go the tracing staff, and held only a small riding cane. With this I was soon actively engaged in hitting at the bees. I probably knocked down three or more of them with my cane. This must have enraged them, and I was soon made to feel the effects of their venom. They settled on the back of my hands and wrists, and all over my face, in every case piercing me with their stings. Wild with pain, I rushed to a bush, crept under it, and covered my face with my hands, coat-collar and hat as much as possible, endeavoring to remain motionless. I could not endure this more than four or five minutes; so I got up and climbed the hill-side, at the top of which were a plateau and a road. This was a very steep climb of at least 150 feet, over boulders and through jungle, with precipices; so that I had to struggle on through a regular maze, having again and again to retrace my way. All the time the bees were at me. I was soon so much exhausted that I could only move a few yards (eight or ten) without having to stop for breath. I had to use my hands as well as my feet in making the ascent. Whenever I stopped, the bees settled upon and stung me more than when I was moving on; my face was covered with them. I had the sensation that they were crawling on my face over each other's backs, as if they were fully two and three deep in number. They made the most persistent efforts to sting me in my eyes—that is, to force their stings between my fast closed eyelids; but they stung my lips most, and several went up my nostrils, and more than once I had to eject them from the latter place by a forcible expiration, closing one nostril with a finger. All this time my sufferings were severe, and it was with the greatest difficulty that I managed to reach the road on the plateau. When there, I had a plain path all the way down the hill to where my pony was, quite half, or, I should say, three-quarters of a mile. I was then able to protect my hands by placing them in my pockets. From the time of commencing to ascend the hill, I had not retaliated on the bees, but, judging it the best policy, had allowed them their way with me. Soon after I reached the plateau, as far as I can say, about half an hour after the bees had begun to sting me. I felt very ill. I had sudden slight indications of rigors, and felt very sick. But I had to struggle on, and get home somehow.

I reached my pony, which is a spirited animal, and mounted him at once. The bees, though less in number, were still at me; and I imagined that they would attack my pony, but they did not. I took the shortest route home, a very bad cross-country track. The bees followed me some distance, and gradually left me. Soon after I was in my saddle, I was vomiting very severely, though I did not bring up much, and this was followed by severe purging of the bowels, the faeces being quite green. I felt very ill, and had to hold on by the pommel of my saddle. I was retching all the way home, and had two actions of the

bowels. When I was able to open my eyes I could see that my face was covered with stubble, which I knew were the stings of the bees; I took care not to touch them. On reaching home, I went to my own room and threw myself on the bed. The doctor was then sent for. I continued to be very sick and was constantly purged. The stings were extracted by my wife and others, and for several days subsequently the doctor found and extracted others. My wife tells me that she thinks there must have been quite 300 stings taken out. Food was most abhorrent to me, and for some nights I could not sleep; but within a week I was up again, though very weak. I have felt the results of this adventure in weakened health for months since, and have lately taken a short sea trip to Calcutta for a change, since which I have somewhat improved in health. The medical treatment consisted of the removal of the stings, and the external application of the following—castor-oil one part, steel-drops one part, collodion six parts; with the internal administration of full doses of steel-drops (the affected parts presented an erysipelatous blush) minim doses of impecacuanha wine to relieve vomiting, solution of morphia to relieve pain and to induce sleep. When the morphia had the former effect only, full doses of bromide of potassium and hydrate of chloral acted as efficient hypnotics."

One of the oldest Queen Breeders in this country, writes thus: "Please stop our advertisement; we are getting more orders than we can fill." This shows the value of advertising in the BEE JOURNAL, for that advertisement appeared in no other paper.

Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again." The time for reading up will soon be here, and in anticipation of this, we now have a very large stock of books on hand, and can fill orders for them in any quantity, on receipt of orders.

In the article on "Reversible Frames," on page 488, in the second paragraph and ninth line, read "inexpensiveness" instead of "inexperience;" and in the next paragraph and fourth line, read "strengthen" for "straighten."

Letters for publication must be written on a separate piece of paper from items of business.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Too Much Tare—Is It Just?

A California Exchange says, that there is much complaint among apiculturists and not without just reason, that dealers are in the habit of extorting too much tare, that they are not satisfied with tareage of cases alone, but require the cans also. It says:

Look at the facts and see if there is not good reason for complaint. We have weighed many cases and find them to run from 10 to 12 pounds, an average of about 11 pounds, and cans at $1\frac{3}{4}$ pounds, often less. The tare exacted from 16 to 18 pounds, when in justice to the producer it should not be more than the weight of the cases alone. Sixty pound screw-top cans, new at the shop, cost from 35 to 40 cents each, and cases 30 cents each; a case with cans \$1.00. It is an established practice among dealers of canned goods, in buying or selling, to deduct the weight of the case alone. Now why, we ask, should honey be made an exception? Is it just? When the apiarist purchases a can or case of coal-oil or lard, or other canned goods from a groceryman, the weight of the can or cans is not deducted, but if he should ever return the same cans filled with honey, the groceryman will deduct the weight of the same cans, thus requiring the apiarist to give them back to him, and when empty, will again sell them back to the apiarist. New cans made expressly for honey, when sold by weight with the honey, bring more than half their cost. Apiarists have good and sufficient cause for complaint, and should remedy this evil, refusing to submit to such extortion.

A Brief Sermon on Cranks.

The *Burlington Hawkeye* publishes a great deal of nonsense, but sometimes in its amusing way it states indisputable facts. The following is from a very recent issue:

What would we do were it not for the cranks? How slowly the tired old world would move, did not the cranks keep it rushing along! Columbus was a crank on the subject of American discovery and navigation, and at last he met the fate of most cranks, was thrown into prison, and died in poverty and disgrace. Greatly venerated now! Oh, yes, we usually esteem a crank most profoundly after we starve him to death. Harvey was a crank on the subject of the circulation of the blood; Galileo was an astronomical crank; Fulton was a crank on the subject of steam navigation; Morse was a telegraph crank. All the old abolitionists were cranks. The Pilgrim Fathers were cranks; John Bunyan was a crank; any man who does not think as you do is a crank. And by and by the crank you despise will have his name in every man's mouth, and a half completed monument to his memory crumbling down in a dozen cities, while nobody

outside of your native village will know that you ever lived. Deal gently with the crank. Of course, some cranks are crankier than others, but do you be very slow to sneer at a man because he knows only one thing and you cannot understand him.

Traveling Sweetness.

Under this head the Augusta, Ga., *Evening News* gives the following account of the shipment of bees to the North from that place:

A large lot of boxes for shipment in the Southern Express office attracted the attention of the *Evening News* this morning, and upon investigation found them to be bees from the apiary of Dr. J. P. H. Brown, of this city. There were seventeen boxes in all, and each box so arranged as to hold four colonies of the little sweeteners in separate apartments. Capt. Boyle, agent of the Express Company, tells us that Dr. Brown ships large quantities of bees to different parts of the country, but the present one is the largest shipment ever made by express from this section. The Doctor is authority on bee-culture in the South, and bears a well-earned reputation in this line over the United States. He makes a specialty of Italian bees, which is one of the best and most prolific kind, and his methods of hiving and shipping are attended with perfect safety to the bees.

T. B. Peterson & Brothers, Philadelphia, Pa., will issue, in a few days, a cheap edition in book form, for the million, of Mrs. D. E. N. Southworth's Last and Best Work, "SELF-RAISED, OR, FROM THE DEPTHS," which will prove to be the most popular work ever published in book form. It is in a large duodecimo volume of 658 pages. Price 75c.

The Western New York and Northwestern Pennsylvania Bee-Keepers' Association will hold its semi-annual meeting at Jamestown, N. Y., on Sept. 1 and 2. A general invitation is extended to all bee-keepers. W. A. SHEWMAN, Sec.

The bee-keepers of Decatur and surrounding counties are cordially invited to meet on Saturday, August 16, 1 o'clock p. m., at the residence of R. R. Cobb, one mile east of Greensburg, Ind., for the purpose of organizing a bee-keepers' society. HENRY CARTER.

The Ohio bee-keepers will hold meetings in which they will have lectures, essays, and reports from bee-keepers, during the Ohio State Fair, which will be held at Columbus, O., Sept. 1 and 5 inclusive. All interested in bee-culture are cordially invited to attend. C. M. KINGSBURY, Sec. DR. H. BESSE, Pres.

Honey and Beeswax Market.

OFFICE OF THE AMERICAN BEE JOURNAL.
Monday, 10 a. m., Aug. 11, 1884.

The following are the latest quotations for honey and beeswax received up to this hour:

CINCINNATI.

HONEY.—The demand for extracted is fair, and to all appearances, gradually improving. It brings 6@9c per pound on arrival. There is a small demand for comb honey, but we had small offers only, and a good deal could be sold. It brings 14c per pound on arrival.

BEESWAX.—Offerings plentiful at 30@32c on arrival. C. F. MUTH, Freeman & Central Ave.

NEW YORK.

HONEY.—Sales of comb honey continue slow. As yet there are no arrivals of this season's crop. We have received several small shipments of new extracted honey, which sold readily. For prices on this year's crop, we quote: Fancy white, 1-lb., 16@18c; fancy white, 2-lb., 15@16c; fair to good, 1 and 2-lb., 12@14c; fancy buckwheat, 1-lb., 12@13c; 2-lb., 11@12c. Extracted, white clover, in kegs or small barrels, 8@9c; dark grades, 7@7½c.

BEESWAX.—Prime yellow, 3@3½c.

MCCAUL & HILDRETH, 34 Hudson St.

BOSTON.

HONEY.—New honey is coming in, and selling at 16@18c, for best white 1 and 2-pound sections. New extracted, 8@9c. Honey in unglazed sections sells the most readily. Old comb honey all gone.

BEESWAX.—35c.

BLAKE & RIPLEY, 57 Chatham Street.

CHICAGO.

HONEY.—This week we have had liberal receipts of comb honey, and the prices are irregular. As a rule, the honey is of first quality, and put up in good shape; a gradual improvement is noted in this respect. Prices range from 14@16c for the best; occasionally a case sells for more than that, but it is in a retail way. The extracted honey is still sluggish, at nominal prices—6@8c per pound.

BEESWAX.—Fair receipts; prices, 30@37c.

R. A. BURNETT, 161 South Water St.

SAN FRANCISCO.

HONEY.—The market is in bad shape for the selling interest, there being no shipping demand, and next to nothing doing on local account. To make matters worse, offerings are being urged on buyers by too many parties, some of whom have little or no knowledge of the honey trade, and are not in a position to be able to do it justice. Quotations are largely nominal. White to extra white comb, 12@13½c; dark to good, 9@11c; extracted, choice to extra white, 5@5½c; dark and candied, 4c.

BEESWAX.—Wholesale 25c.

STEARNS & SMITH, 428 Front Street.

KANSAS CITY.

HONEY.—Choice new 2-lb. sections are now bringing 17@18c, and 1-lb. 18@19c, ½-lb. 19@20c. Extracted in fair demand at 7@8c, extra choice would bring 9c in barrels. No other packages wanted in this market.

BEESWAX.—Nominal, 30@35c.

JEROME TWICHELL, 514 Walnut Street.

ST. LOUIS.

HONEY.—Steady; demand and supply both small. Comb, 12@14c per lb., and strained and extracted 6@6½c.

BEESWAX.—Firm at 32@32½c. for choice.

W. T. ANDERSON & CO., 104 N. 3d Street.

CLEVELAND.

HONEY.—We are glad to be able to give more definite quotations on honey. Sales have been made during the week in a small way at 16@17c for best white 1-lb. sections; 15@16c for second shade. Of lower grades and 2-lb. sections, there has been no movement, but it might be quoted at 14@15c. There are a good many little lots scattered about our market, retarding the ready movement of large lots. Extracted honey, dull.

BEESWAX.—30c.

A. C. KENDEL, 115 Ontario Street.

SAN FRANCISCO.

HONEY.—We quote comb honey in 2 lb. sections, 15c; extracted, 7@7½c.

GEO. W. MEADE & CO., 213 Market St.

Emerson Binders—made especially for the BEE JOURNAL, are lettered in gold on the back, and make a very convenient way of preserving the BEE JOURNAL as fast as received. They will be sent, post-paid, for 75 cents, for the Weekly; or for the Monthly, 50 cents. They cannot be sent by mail to Canada.

CORRESPONDENCE

For the American Bee Journal.

The Hibernation of Bees.

WM. F. CLARKE.

Letters are pouring in upon me, criticising and asking questions about my recently announced discovery, to an extent quite beyond the possibility of answering them all by private correspondence; and as the subject is one of general interest, there is no better way of discussing it than in the bee-publications.

Apiculture is to me, and to many other "dabblers," as Mr. Heddon styles us, a most fascinating pursuit; but our life-work lies outside of it, and we can only give to it the time economized from other and more pressing duties. Let no correspondent, then, feel slighted if a private letter is unanswered. I will endeavor to meet all the really important points raised by these communications, thus far, in the present article.

MY "BASIC PRINCIPLE."

A much-esteemed friend, who was the first to write me on the subject, threw a cold, wet blanket over my enthusiasm by saying, "Your basic principle, that bees succeed better in trees than elsewhere, is all wrong." But let me say that is not my "basic principle." The fact that I had never met with, heard, or read of a colony of bees being winter-killed in a hollow-tree, was what set me to thinking. Very likely I put the thing too strongly, but I put it as it appeared to my own mind. It may be that bees are sometimes winter-killed in their tree-trunk homes, but it is quite certain that they usually do well in such places. The question *why* this is so, was what led to a course of thinking and investigation which resulted in the conviction that bees, in a normal condition, hibernate. That is my "basic principle."

"WHAT IS HIBERNATION?"

I have been surprised at receiving this question from quarters whence I hardly expected it. And yet there is no great cause for surprise when it is considered how little has been said about it in our bee-literature. I do not own a complete set of the BEE JOURNAL, (I wish I did!) but I have searched in vain through all the back volumes in my possession for anything on the subject. If you will refer to your file, Friend Newman, I should not wonder if you make the discovery that this is the first article headed "Hibernation," which has appeared in all the XX volumes of its history.

All sorts of apicultural theories have been discussed—some of them fanciful enough—but this important matter has been singularly overlooked. The same is true of the bee-books. Even Prof. Cook, eminent entomolo-

gist as he is, omits all reference to it in his valuable "Manual of the Apiary." Yet, though ignored by the bee-books, I find in as old a work on "Entomology" as that of Kirby and Spence, a long chapter on the "Hibernation of Insects;" several pages of which are taken up with a special discussion on the hibernation of bees.

"Hibernation," says the Encyclopedia Britannica (last edition), "is the term employed by naturalists to denote the peculiar state of torpor in which many animals, which inhabit cold or temperate climates, pass the winter." The article proceeds to show that not animals merely, but insects, pass the winter in this "peculiar state of torpor." Hibernation takes place in different degrees; the American black bear and the hedgehog being the most perfect samples of it. These creatures are torpid all winter long, taking no food through the entire season. Other animals, and some insects, bees among the rest, sink into a state of torpor or semi-torpor for a briefer or longer period, rousing up now-and-then, and taking "a good, square meal."

THE PHILOSOPHY OF HIBERNATION.

I cannot state this better than in the words of Kirby and Spence: "If insects can boast of a greater variety of food than many other tribes of animals, this advantage seems, at first sight, more than counterbalanced in our climates by the temporary nature of their supply. The graminivorous quadrupeds, with few exceptions, however scanty their bill of fare, and their carnivorous brethren, as well as the whole race of birds and fishes, can at all seasons satisfy, in greater or less abundance, their demand for food. But to the great majority of insects, the earth, for nearly one-half of the year, is a barren desert, affording no appropriate nutriment. * * How is this difficulty provided for? In what mode has the Universal Parent secured an uninterrupted succession of generations in a class of animals, for the most part doomed to a six months' deprivation of the food which they ordinarily devour with so much voracity? By a beautiful series of provisions founded on the faculty, common also to some of the larger animals, of passing the winter in a state of torpor—by ordaining that the insect shall live through that period, either in an incomplete state of its existence, when its organs of nutrition are undeveloped, or, if the active epoch of its life has commenced, that it shall seek out appropriate *hybernacula*, or winter quarters, and in them fall into a profound sleep, during which a supply of food is equally unnecessary." Let me lay it down as a general proposition, that all we have to do for our colonies of bees, is to provide them with "appropriate *hybernacula*."

If it be said that this is what we have been trying to do all these years in our plans for wintering bees, I answer, "No;" we have not provided "*hybernacula*," places in which bees could follow their natural instincts and

hibernate. Most of our winter arrangements have been such that they either could not go into their normal condition of torpor, or having gone into it, could not get out of it sufficiently to appease the claims of hunger.

When kept too warm, bees cannot go off into their natural state of torpor. They become restless, get hungry, eat freely, and must void their excrement; if confined to the hive, they defecate it, and then comes diarrhoea, with death in its train. The opposite extreme of temperature has a like effect. They are too cold. Hunger awakes them. Their food is as cold as they are. What is the usual effect of cold victuals on a cold eater? We all know.

Occasionally and by accident, we hit the hibernating condition. Then our bees consume but little food, and divide their time between eating and sleeping. They wake from their torpor to eat what nature requires, and, in that quiet state, but little is needed. Digestion, we may well believe, is a very slow process in a torpid bee, and when completed, the result is a dry, powdery excrement, long ago known by bee-keepers to be one of the signs of healthy and successful wintering.

One of my correspondents writes: "Friend Clarke, I want you to remember that diarrhoea is the cause of winter trouble; that is well-known, the point to get at is the cause of diarrhoea." Well, here it is: *non-hibernation*. If bees are fixed so they can hibernate, they would not have the diarrhoea. If they cannot hibernate, from whatever cause, they will have the diarrhoea. Why, hibernation is nature's contrivance to enable them to stay in-doors and not get diseased. Man says: "Yes, you shall stay in-doors all right, my dear little pets; but you shall have one uniform temperature." That renders hibernation difficult, if not impossible; because it is, no doubt, the mild spells thawing them out as it were, that rouse them from torpor, and give them a chance to eat. If, like the bear and hedgehog they took one long sleep that lasted all winter, then we would have only to find out the temperature at which they could take that single sleep most comfortably; but we have a harder problem to solve. We want to expose them sufficiently to the temperature of the outside world, so that they will be affected by its changes, and yet not freeze to death during a period of extreme cold. This is the point on which I desire bee keepers to experiment. The principle is clear enough. Bees must hibernate, if they are to winter naturally. We must find out how much exposure to the outer air they need in order to follow the hibernating instinct, and yet not be in danger of freezing to death. They must feel the cold sufficiently to get into a sleep out of which there is no waking.

SELF-REGULATING PROVISIONS.

Every where we see arrangements to guard against contingencies; but

man is always putting in his meddling, clumsy hand to interfere with these arrangements. This is what we have been doing with our cellars, beehouses, clamps and straw-packed hives. We have insisted upon uniform temperature, upward ventilation, escape of moisture, and framed a variety of iron rules, all unconscious that nature is ahead of us, and has made far better provision for contingencies than we can possibly do.

We are content to let the bees attend to their own ventilation during the summer, but they are not to be trusted in winter. Oh, no! Dame Nature forgot all about winter! Did she, though? There are great variations of temperature during the summer; cool and even frosty nights in June, and chilly weather in July, alternating with extreme heat. But the bees regulate things so that a cool term does not chill the brood, and when it is very hot they convert their wings into fans and get up a circulation of air at the entrance of the hive, or a lot of them cluster outside to give those within more breathing space.

A. I. Root, in his "A B C of Bee-Culture," page 276, says: "Day before yesterday, while I was walking near a hive, a bit of chaff flew out of the entrance, as if impelled by a draft of wind. 'Halloo!' said I, 'have you really become so strong as to send out a current of air for ventilation?' and I approached and held the back of my hand before the entrance. Sure enough, there was a steady, strong blast, and what astonished me more, it was so warm that it seemed almost as if it must come from an oven."

Huber found that a strong colony of bees could get up the temperature inside the hive to 86° or 88° Fahr., when it was several degrees below zero in the open air; and that "in the depth of winter they do not cease to ventilate the hive by the singular process of agitating their wings as before described." For wintering, the cardinal principle, "keep all colonies strong," only needs to be supplemented by the axiom, "plenty of pure, still air." The bees will do the rest for themselves. Mr. Root, in his A B C book, page 273, gives a diagram of arrows representing the course of the currents of air in a hive.

The bees make these currents as they find them necessary; but when they have a meagre supply of air, or there is a drought right through the hive, they are helpless. If the great pyramid of Egypt were hoisted on pillars 10 or 20 feet high, and a colony of bees were established in a cavity at its base, they would fix the air all right in the cavity by means of the ventilating and heating apparatus with which nature has furnished them. Our uniform-temperature contrivances, and our moisture absorbents, are bungling interferences with natural law. Give the bees a chance to use their own faculties, and they will be all right. They will fan all moisture out of the hive, and get up the temperature that suits them.

THE "SYMPTOMATOLOGY" OF IT.

This is a big word, but it is a correct one, and is used by a highly-esteemed correspondent, who says: "Please detail to me the symptomatology and exact condition the bees are in, how long it may last, and how they act, etc., when hibernating." Quietude, torpor or semi-torpor, and total inactivity constitute about all I know of the hibernating condition. How many of the functions of life are suspended, I will not pretend to say.

One writer affirms: "The insect breathes no longer, and has no need of a supply of air; its nutritive secretions cease; no more food is required; and it has all the external symptoms of death." This may be too strong a statement; but inasmuch as bees form a very compact cluster when they hibernate, there cannot be much respiration even in the centre of the cluster. I cannot say how long the hibernating state lasts in the case of the bees. I only know that it is broken at intervals, when food is taken.

As to "how they act," it would seem that they do not "act" at all. It is the only state of complete repose experienced by this insect, and hence, though when active, it is short-lived, this provision of nature lengthens out "the brittle thread," and enables old bees to survive until spring.

OBJECTIONS.—"Since other hibernating creatures pass the winter underground, why are not cellars and clamps good places for bees?" Chiefly because they are impervious to changes of temperature. Bees must feed occasionally in the course of the winter, and mild weather gives them the opportunity of doing so. Moreover, animals that hibernate in the ground, have their home there all the year round, but bees are denizens of the upper air.

"Your plan for hives and stands is not practical for general honey-producing." Why not? It is less costly than bee-houses, and saves all the trouble of carrying hives in and out of winter receptacles; but I have no doubt a simpler and cheaper plan than mine will be devised. I lay no stress on the plan. It is the principle I contend for. I simply say: "Give bees a chance to hibernate, and they will winter well." To do this, I firmly believe that we must get them up off of the ground. Possibly removing the bottom-board, and raising them an inch or so above the table-high stand will answer every purpose, though I doubt that will be "too much of a good thing." Perhaps an inch opening covered with fine wire cloth will be found to temper the air sufficiently to render this method successful.

I can think of several devices, besides the particular one I have described in the BEE JOURNAL, and intend to experiment with them. The whole thing lies in a nut-shell. In cold climates, it is the nature of bees to hibernate. We must conform our winter arrangements to this fixed habit of theirs, or pay the penalty as we have been doing.

Speedside, Ont.

For the American Bee Journal.

Shall we Breed Hybrid Bees?

J. O. SHEARMAN.

On page 469, Mr. Heddon asks a question which I fully expected would certainly attract the attention of the lovers of pure Italians; but as I have failed to see anything concerning it in the BEE JOURNAL, I will answer the question as if addressed to me. Shall we breed hybrids? Yes; in a certain way and for certain purposes. But *call* them hybrids, and not "new strains," as some are apt to be of the very best for business purposes, while others may not. To explain: I would say, breed a choice strain of Italians with a choice strain of black or brown bees, then you are very likely to have hybrids that cannot be beaten for business, and not very cross either; but to breed hybrids together, will produce naturally cross bees, however they may be banded.

I call them different degrees of hybrids; i. e., Italians and blacks bred together are of the first degree; then a queen from them would be of the second degree, etc. After they had reached the third degree, I do not like them, nor they me. So I say, do not breed hybrids indiscriminately. I think the most experienced honey-producers of to-day agree that good hybrids are best as surplus honey gatherers; and I will add, they breed faster, and are more liable to swarm under the same treatment and condition than either race in its purity.

I have noticed for several years past, that when I reared a quantity of queens and kept account of them afterwards, there would generally be one that developed some peculiar trait, or rather characteristic in a marked degree. For instance: About six years ago I had a young hybrid queen reared from a prolific hybrid queen in the midst of the swarming season, which seemed to be possessed of a strong propensity for laying, and through the fall bloom, too. (Italians seldom do that.) She kept her hive so full of brood, that there was not room enough to store the needful supply for winter.

Again, last spring I heard of a farmer who had 8 colonies of bees which had wintered through without any care at all. Now, last winter being uncommonly severe, this led me, out of curiosity, to go over there on purpose to investigate the causes, if any, of their wintering safely on the summer stands, and in single-walled hives with no protection, i. e., packing. I found them as stated, and all but two were strong, and had drones when clover first bloomed. They were blacks, and mixed by hybridizing with Italians, or rather yellow hybrid drones. I was just foolish (?) enough to possess them, and so brought them home and let their black drones fly in my yard, so as to rear some hybrids with some of my best Italian queens, and that, too, when I had my apiary nearly Italianized.

Now, the point is this: One of those queens had kept three hives

well supplied with brood for the last two months. I piled them up for the producing of extracted honey, and every time I took off the upper two stories, I found brood enough in each one to make a fair sized colony for winter quarters, and also honey enough to winter them on. Now (Aug. 3) they are heavy again, and out at all of the three door-ways. On the other hand, I once had a queen whose bees did not seem to care to swarm at all, their main impulse being for honey the season through. In the latter part of the season, I could hardly get eggs enough to rear some queens, by putting combs in their hives, as they would fill them with honey; but she kept her hive well stocked. They were Italians.

Now, I have a question to ask: Will those bees which I got from the farmer, in the spring, develop a strain more hardy for wintering than the average? or was the same condition accidentally overlooked that favored their coming through without protection, while all the others within 2 miles died? and nearly all the others in the same kind of hive, and put up for winter in the same way, i. e., simply left on the summer stands? The mixed-hybrid's motto seems to be, in substance, the same as the dying miser's advice to his son: "Get money (honey) my son, get money (honey)!" Honestly if you can, but any way get money (honey)."

New Richmond, Mich.

For the American Bee Journal.

An Enemy to Borage.

CLARENCE M. WEED.

On account of the length of its period of blooming, and the fact of its secreting nectar during wet weather, borage justly ranks among the first of honey-producing plants. The enemy of which I wish to speak, is the caterpillar of one of our most beautiful butterflies, the Painted Lady or Thistle Butterfly (*Pyromorpha cardui*). This butterfly is very generally distributed over the United States, and has long been known, although not heretofore considered a serious pest on account of its rarity, and its habit of feeding on thistle and other noxious plants. But we can never tell what insect will be the next to multiply to such an extent as to become injurious.

DESCRIPTION:—There are two broods of the worms in a season, the first appearing in May or June, and the second in August. The small blackish caterpillars are covered with branching spines, a portion of which on the back are yellow, the rest black. When full grown, they are about an inch and a half long, and black with a greenish yellow line on each side, above which is a less distinct brown line. The head is black, and on each ring of the body are seven many-branched spines, yellow tipped with black. They protect themselves by spinning a white silken web by which they draw two leaves or the sides of one leaf together, thus forming a

tent. The chrysalids vary a good deal, but are usually of a golden brown color with slate-colored markings.

In about ten days after becoming a chrysalis, the butterfly emerges; the latter expands about 2½ inches. The upper surface of the wings are a pinkish red near the body, and black toward the outside. In the outer angle of the front wings, are five irregular white spots. On the under surface of each posterior ring is a row of five, colored, circular spots. Prof. Cook informs me that he has never seen these butterflies so common as they are at the present season. Besides borage, the caterpillars have appeared on hollyhocks in many parts of the State.

REMEDIES:—Pyrethrum will probably be found effective in destroying them, if applied with sufficient force to penetrate the web. It would not be advisable to apply the deadly arsenical compounds when the plants are blooming, but at other times this method would doubtless be found practicable.

Lansing, Mich.

For the American Bee Journal.

Bees as Comb Builders.

GEO. H. HOYLE.

The positions taken by some of our leading bee-keepers, and the results of their experiments being so different, I hope, by the aid of others, to find wherein the difference lies. I will first state my experience. On May 3, I hived a swarm of hybrid bees in a Simplicity hive, and gave them 10 half-sheets of comb foundation. A week afterward I put on another story with 10 half-sheets of foundation, and 2 weeks after that I gave them a third story and 10 empty frames with wax comb-guides. These frames I placed alternately between the others, to insure straight combs.

When I commenced extracting, I gave them 4 more half-sheets of foundation, and two more empty frames. The result was that I got 24 good combs from half-sheets of foundation, and 12 from empty frames with wax comb-guides. I have extracted 94 pounds of honey from them, and there is yet upwards of 20 pounds in the hive.

The queen of the above mentioned bees, is an Italian, and was fertilized by a black or German drone. I tried to make one of my Italian colonies build comb in the same manner, and when I gave them half-sheets of foundation, they would draw it out, fill it with honey, and seal it, but they would add very little comb to it. When I extracted the honey, I gave them good combs, and gave the half-combs to hybrids to build on. I tried them with wax comb-guides, and it did not work at all. After 5 or 6 days I took the frames out, and they had started a piece of comb on one frame. What little they had built, you could plainly see, was of old wax and had been taken from some other comb.

The Italians and hybrids rank about the same, as honey-gatherers.

Mr. Doolittle says that he can have combs built cheaper than he could buy comb foundation to put into the same number of frames. Now, Mr. D. is a successful bee-keeper of excellent judgment, which his articles in the bee-papers prove, and it is not likely that he is very far wrong. Some bee-keepers say, "How can Mr. Doolittle know, as he never used 10 pounds of foundation in his life?" I will venture to say that Mr. D. is very familiar with the results of other apiaries in which foundation is used.

If Mr. Doolittle would tell us what kind of bees he had, and the bee-keepers who have written in favor of, as well as those who have written adverse to, his plan of having combs built, would do the same, I think it would give some light on the subject.

Mr. H. V. Train, on page 278, writes under the head of "Italians vs. Brown Bees." The object of the article is to show how badly his brown bees outdid his Italians. Now we, who use foundation and extractors, all know that the Italians are as good honey-gatherers as has yet been discovered. Please tell us, Mr. Train, if you used foundation at the time.

Morgan, Texas.

Philadelphia Times.

Philadelphia Bee-Keepers' Picnic.

In a beautiful glen surrounded by woodlands and close to the rippling Wissahickon, stands a quaint old-fashioned farmstead. Here were congregated on July 23, on a space cleared around the house, some thirty ladies and gentlemen, whose conversation was entirely devoted to the relative merits of various kinds of bees and their culture, while one of their number introduced them to his large colony of honey-collectors. It was the special summer meeting of the Philadelphia Bee-Keepers' Association. The farm was Vice-President Todd's bee and poultry farm at Kitchen's Lane, Germantown. He is from the old country and has been in America only a few years, but has already identified himself with apiarian interests in this country. In his yard are arranged more than eighty hives, some of them three stories in height.

"Now, ladies and gentlemen," said Mr. Todd, "if you will step this way we will look into some of the hives. Put on your veils if you have them. I do not think it will be necessary, but you may be nervous, and if you should be rough with the bees, they are apt to get angry."

Mr. Todd, without any covering to face or hands, lifted the lids of the hives, took out the combs swarming with bees, handled the little creatures, allowed them to crawl over him and showed no trepidation of any kind.

"Do they never sting you?" he was asked. "Very seldom. Sometimes when honey runs short and they are hungry, they are not so quiet and amiable; but they are exceptionally good-humored to-day. You see, I blow a little smoke into the hive;

that frightens them; they gorge themselves with honey in their terror and they are thus rendered quiet and comparatively harmless. Ah, there is the queen," he continued, pointing to a bee much longer than the rest and with smaller wings. "See, there are some eggs. It is all right. She is fertilized." At this statement there was considerable excitement among the enthusiasts assembled.

The apiarist took two frames of comb into the house and showed how the honey was extracted. He first shaved the covering from the cells and then placed the combs into a kind of churn, which he turned very rapidly. The honey was all ejected into the receptacle, and the combs, once more empty, were ready to be again filled by the industrious little collectors. Mr. Todd then took his visitors to see his three-acre sunflower plantation.

"This is an experiment," he said. "I have heard that in Spain and Portugal the green leaves of the sunflower are used as fodder for the cattle. I have tried it with perfect success. My bees will obtain an immense supply of honey from the flowers, and the seed is good feed for the poultry. I shall in that way obtain three crops from my outlay. It is also possible that out of my abundance of blooms I may send some to market for sale, as they are a beautiful flower; and I may also make the experiment of making bread of the seed-flour. That is done in Spain, where the sunflower receives the title of 'the gift of heaven.'"

The party thence returned to the bee-village and resumed the inspection of the tenements. They were shown colonies of Italian bees, black bees and hybrids. The various qualities of their honey-storing abilities were descanted upon and the safety of handling the pure-bred, civilized Italians was extolled; while the fierce nature of the native black bee was vigorously proclaimed. Mr. Todd exhibited a thorough-bred Italian queen-bee and her young brood. This queen was sent over from Italy in a little wire cage, supplied with saccharine provision for her long ocean voyage, on two little bits of sponge. She is very healthy and is rearing a prosperous young colony in her new quarters with all the maternal energy and pride of which she is capable.

Dr. R. H. Townsend, president of the Philadelphia Bee-Keepers' Association, called a meeting on the hill above the house, under the shade of some fine chestnut trees, and spoke of the increasing interest which is felt in apiculture. He bemoaned the fact that more interest in this useful branch of productive art is not taken in the colleges and schools of learning in this country, saying that he thought that in every college there should be a professor of apiculture.

The Southern Indiana Bee-Keepers' Association will meet at Madison, Ind., on Sept. 4, 1884, at the Fair Grounds. DR. FIRTH, Sec.

For the American Bee Journal.

Introducing Queens—My experience.

ABEL GRESH.

Quite recently one of my colonies cast a swarm (the smallest out of five), and as usual I moved the old hive to a new stand. In due time a young queen was hatched, and she destroyed all the remaining cells. In about a week after the queen hatched, I noticed that the new colony was carrying out bees, to a large extent, so I began to investigate, when I found that those which were carried out, were of a peculiar shape and color. The colony was Italian, having purchased the mother last season, as a tested queen. The workers are very fairly marked, while those carried out are short and chubby looking, having one fair yellow band, and instead of the two hindmost bands, they are black, and some of them very shiny. I should say at least one thousand such bees were carried out alive. Some of them came running out, and appeared as if stung. They acted as if crazy, running over the sawdust floor without any aim, until they died. I looked for the young queen, and could not find her; so I continued to look 3 or 4 days (thinking that possibly I had overlooked her before), until I was convinced that the colony was queenless.

Having extra queens in nuclei, I determined to introduce one, and luckily (as I thought) along came the BEE JOURNAL of July 16, 1884; and on page 456 appeared an article from the pen of S. Simmins, on an easy way of introducing queens direct to a colony. I studied the method to suit my circumstances (from a nucleus to a colony), and the next morning I determined to try the new plan.

Luckily my old tutor in the business happened to call on me, and together we took a final search for a queen in the hive. We found none, but we did find plenty of newly-laid eggs, and on closer examination pronounced them the work of fertile workers. We closed the hive and returned to Simmins' article, and found that we still were right, and that the new method was quite applicable to my case. So we took the frame with the queen and adhering bees, to the colony, removed a comb, put the one from the nucleus in its place, closed the hive with confidence, and looked after some other colony. In 15 minutes we noticed the bees busy carrying out dead bees, and the next morning I found my beautiful young queen lying in front of the hive, dead.

I do not think one of the introduced bees were spared. I was then in a frame of mind to commune a little with S. Simmins, and also to teach my fertile-worker crew a lesson.

I read Prof. Cook's way of getting rid of the latter (as he is generally sound). I then carried the hive 2 or 3 rods away, thoroughly smoked the bees, took out all the frames and set them around, brushed the remaining bees out of the hive, then carried it to its old stand. I then took two

combs out of a nucleus, with the queen and bees adhering to it, and put it in the middle of the hive. I then brushed every bee from the combs to the ground, and placed each one by the side of the nucleus combs, until the hive was full, when I closed it, and let the bees get back as best they could. The result is satisfactory; no bees killed, and the colony is working actively.

Can some one tell what causes the small, shiny, imperfect bee that was being carried out? May not the presence of fertile workers have some connection with them, or vice versa?

In regard to Mr. Simmins' article, I would caution readers of the BEE JOURNAL not to place too much confidence in it, as it is one of the rules mentioned by Mr. Doolittle, which do not apply as do the rules of arithmetic. I am inclined to believe that the old queen is at fault, and unless I am convinced of the contrary, I shall not spare her. Bees are doing fairly well here this season.

Weedville, Pa., July 29, 1884.

For the American Bee Journal.

Profitable Use of Comb Foundation.

W. M. WOODWARD.

That comb foundation is one of the most valuable inventions of modern bee-keeping, I supposed was universally admitted; but I see that even so judicious a bee-keeper as Mr. Doolittle not only doubts, but decidedly opposes its use. How he could perform any decisive experiments upon less than 10 pounds of it, I fail to see. I used three times 10 pounds to satisfy my own mind, and found that proper management made it pay me; not only to use it, but to buy a machine and make my own. (I am Mr. D.'s poor man, to a dot.)

My experiments proved to me that, with the ordinary management, from 50 to 75 pounds of honey can be realized from every prime swarm, above what they will naturally produce without its use.

The point where I conceive Mr. D. in error, is in his estimate of the necessary wax secreted by bees while gathering honey. I want to ask him to examine his colonies which are run for extracted honey, where, if I mistake not, he will learn that they are able to make good use of all the wax secreted. If so, this proves that the secretion of wax is not necessary, but occurs for want of room to deposit the honey immediately on returning to the hive, and before it becomes digested. Comb foundation is certainly the remedy when rightly used.

Its profitable use then turns upon these points: 1. That there should be an abundance of it to give all the surface the bees will cover. 2. That it should be as light in grade as will admit of being drawn to storing and brooding depth, thus compelling the bees to store in a large extent of surface at the start. 3. That all space, save just enough to hold the brood as fast as it can be produced, must be filled with sections. This last point I

think Mr. D. will readily admit, as it grows out of his own system of management.

I have my hives so constructed, this season, that I hive bees on 3 frames; which has so far been sufficient for 10 to 15 days, when 3 more are added, being just enough to fill the space of one side-case of sections.

Mr. D. asks those who have tried and favor its use, *i. e.*, have made it pay, to pass his article by as though he had never written it. If by this he hopes to gain a mark, we protest that he is giving general advice which is suited only to local or peculiar conditions; but like his new method of introducing queens, will not always work with mathematical precision.

Where swarming occurs in a very moderate honey-flow, and no surplus is likely to be had, it will pay any bee-keeper to try working the bees at comb building for profit, even if he finds it necessary to render the combs into wax as fast as made. But in a vast majority of cases, I think bees swarm most during a paying surplus yield. Under such circumstances foundation is certainly a great boom.

Mr. D.'s objection on account of thickness of foundation, in his last article, is entirely superfluous, as he himself can make his own foundation "thinner" than any bees will make it. At least I can.

Custer, Ill.

Prairie Farmer.

A Timely Chat About Bees.

MRS. L. HARRISON.

While visiting an apiary yesterday, I was impressed with the idea that bee-keepers are born, not made; *i. e.*, that there must be a natural adaptation for the business, in order to succeed. The proprietor of this apiary, without any protection, or aid in the way of smoke, opened hives, and pointed out the queen, without exciting the bees in the least; indeed they did not appear to know that they were disturbed, and this, too, in a time of scarcity. The cover of the hive was removed, and the frames lifted, without any jar or noise. I sometimes think that the odor of some persons, or their magnetism, excites bees at a furious rate. The frames in this apiary had no wooden projections to hang by, nails being driven in for this purpose, consequently there was no prying up.

This apiary of 140 colonies is located in Putnam Co., Ill., and up to date, July 26, only about 100 lbs. of surplus honey have been removed. At this time last year, 7,000 lbs. had been taken. There was very little honey-dew in this locality, the small quantity lasting only a day or two. The maples are in a thrifty condition, with no appearance of bark-lice.

The honey crop, with the exception of a few localities, is a partial failure. The honey secured is in many instances contaminated with honey-dew, and but very little of it will be first class. The electric conditions for the secretion of nectar from white clover,

have been deficient, and although the bloom was abundant, but little has been secured. Hot nights—good corn-growing weather—is the desideratum. The prospect is good generally, for a full autumn flow of honey; and those having their dishes right side up, will catch it. Hives that are full of bees will be the ones to pay their rent promptly. Those desiring to winter their bees well, must look after them now, and see that each colony has a young, vigorous queen.

For the American Bee Journal.

"Honor to Whom Honor is Due."

J. E. POND, JR.

It is too bad to rob, or attempt to rob another of that to which he is honestly and justly entitled, not only of filthy lucre, but of any honor that may come from being the originator of some new idea. That Mr. Heddon is justly entitled to all the honor that belongs to the origination of the "pollen theory," no one knows better than myself, from the fact that I have been fighting him on this question for nearly three years. Mr. Heddon, however, does not yet claim that he has proved the theory true. He simply says he believes it to be so, and offers such evidence as he has at hand in proof thereof, leaving it to the public to judge whether such evidence is sufficiently strong to be taken as proof. Mr. Fradenburg is more than a year behind Mr. H. in the matter, and the evidence that he offers is not nearly as strong as that of Mr. H. I do not think either of them have struck the right key yet, but the facts related by Mr. H. go far in support of the theory, while those of Mr. F. might as well be used on the one side as the other.

Foxboro, Mass.

For the American Bee Journal.

Prevention of After-Swarms.

A. A. DECKER.

On page 126, BEE JOURNAL for 1883, Mr. Heddon gives his method of preventing after-swarms, which is summed up as follows: Set the new colony by the side of the old one, and in 6 or 7 days remove the old one to a new stand when the most of the workers are away in the fields; thereby giving nearly all of the workers that are old enough to gather honey, to the new colony. This will prevent after-swarms, without a doubt; but what I do not like about this plan is, that we take about as many bees from the old colony as a second swarm would require. The old colony needs these bees, the first swarm does not. Again, will the new colony accept the workers from the old one, after being separated for 6 or 7 days, even if laden with honey? My bees certainly will not.

I believe any other colony in the yard will take them in just as soon as they, as they have become strangers. Another objection is, if we give any

help, either in bees or foundation, to early swarms, they will in a good season often cast swarms in the midst of our best honey flow (basswood), regardless of all the sections filled with the nicest of thin foundation.

Can it be possible that bees act so differently in different localities? I believe, with Mr. Heddon, that a colony and its increase will store more honey than one that does not swarm. All practical bee keepers know that there is no profit or pleasure in small after-swarms; and in this locality to get the best results, *i. e.*, surplus honey from the old colony, all the bees that are left when the first swarms leave, should stay in the old hive during the remainder of the season. The best way to accomplish this, I believe, is to introduce a queen into the old colony, on the day the first swarm issues, either a virgin or a fertile queen will do. You can smoke them in at the entrance. There are few old workers left in the hive, and no guards over the queen-cells. The queen, when introduced, makes it her first business to destroy these cells, and then everything is lovely.

The gain in time, to the colony, in getting a queen in the midst of the honey season, 8 days at the least, will pay all expenses of rearing or buying the queens in these days of progress and queen nurseries. That this plan will generally prove successful, there is not a doubt, for it has been thoroughly tested. I hope to hear from Mr. Heddon and others on this subject.

Boyceville, Wis., Aug. 1, 1884.

Bee-Culture in Texas.

An Exchange contains the following: "Bees are said to be pioneers of civilization. The early colonists of Texas found bees in all parts of the country; and on the frontier they still abound, having formed colonies in hollow trees, caves, and crevices in the rocks. In one instance it is reported that a prolific swarm took possession of the vacant space between the ceiling and weather-boarding of a house in the far West, and furnished a large family with an abundance of honey. Until recently, comparatively little attention has been given to bee-culture. Within the past few years, some apiarists have been adopting hives with movable frames, using honey extractors, and importing queens and Italianizing their colonies. A special act of the Legislature exempts bees, and the materials employed in the manufacture of hives and the saving of honey, from taxation; and while there are hog-laws and sheep-laws, and laws prohibiting other animals from running at large, there is no law limiting the range of bees. They may forage just where they can find honey-producing shrubs and flowers. Of these flowers there is a great variety and an inexhaustible abundance on our boundless prairies, and in our fertile bottom-lands. Perhaps the best and most widely diffused of the honey-producing plants is the horse-mint. This is pronounced equal to the white clover of more Northern latitudes."

SELECTIONS FROM OUR LETTER BOX

A Good Investment.

I commenced the season by buying 25 colonies of bees in Cottage hives, transferred them to Langstroth frames, and got on an average of $5\frac{1}{2}$ combs to the hive, after they were transferred. Up to this time, I have taken 1,500 pounds of extracted honey, and have sold very nearly the whole crop at 15 cents per pound. I hired a market gardener, who was good at peddling, at \$2 per day, to sell honey for me, and I found that it was a good investment. B. F. BALDWIN.

Marion, Ind., Aug. 3, 1884.

Bees Not Working.

Bees in and around this city have done but little for 2 weeks; but 4 miles below the city, on the Island, they are storing honey rapidly. Mr. T. R. Sawyer and myself are now located on the Iowa City road, one mile from the Court House. He has 100 colonies, and I have 25. Our prospects, until 2 weeks ago, were as good as they had been up to that time 2 years before, when, in the fall, he received from 45 colonies, spring count, 7,300 pounds of mostly comb honey in 1-pound and $1\frac{1}{2}$ -pound sections.

W. T. KIRK.

Muscataine, Iowa, Aug. 1, 1884.

Poorest Season Since 1869.

With us, this is the poorest season for honey since 1869. We had cold, windy, cloudy weather when there was blossoms, and good weather when our honey-producing flowers were gone.

G. M. DOOLITTLE.

Borodino, N. Y., July 31, 1884.

Main Honey Season Past.

The main honey season has past and I have no bonanza to boast of. Our failures are bound to advance the price of honey. We must admit that the freaks of nature are in advance of the skill of man. In the first part of the season, apple bloom was profuse. Clover bloomed May 20, and lasted till July 10; but there was very little nectar gathered from that source. The so-called honey dew, or nectar from the leaves of trees, was abundant from the last of May till June 30; and my 54 colonies from all those sources filled all the hives with nice capped honey and bees. On July 7, I took off 600 lbs. of comb honey and extracted about 65 lbs., and I saw signs which led me to leave the honey and bees alone for a short time and see the result; and I now can say that the 54 colonies were once richer this season than they are to-day. To-day I find the heart's-ease nearly all blasted in the bud. It is a settled fact that the bees are now consuming more honey in rearing brood than they gather each day. My queens are breeding in haste and consuming their laid-up

store. My buckwheat is in bloom and the bees sip every bloom clean in less than two hours each day. I can see no source yet from which I am likely to get any fall honey. My 52 old colonies swarmed 92 times, and every one returned to the parent colony, because the wings of the queens were clipped; consequently, I never lost a queen and have no swarmed-to-death colonies. I did not have to feed any last spring, and my hives are full of bees and honey; but I do not want to rob them so they will suffer for the mere purpose of obtaining a large profit at the expense of the blessed bees' lives. I could, to-day, take 50 lbs. from each hive, but I prefer to keep my bees and honey in the same little house until I see that all danger is past; and then deal honestly with the little honey-gatherers, for they are honest in their dealings. They live, labor, store and die, that people may live and be happy. The Italian bees are the best bees to gather honey early and late. R. M. OSBORN.

Kane, Ill., July 24, 1884.

Swarm Separators.

In reply to Mr. Kinsel's questions on page 411, in regard to swarm separators, I would say: The division-boards do extend to the bottom-boards, and the cover rests on the division-boards so that the bees cannot enter from one division to the other. On the top the frames are $\frac{3}{4}$ of an inch lower than the division-boards. In separating, the bees pass through the entrance in the bottom of the division-boards, or through $1\frac{1}{2}$ -inch augur-holes bored 4 inches from the tops of the division-boards. I gave a description of the swarm separator as published on page 171 of the BEE JOURNAL for 1881. Although the honey interest looked rather gloomy, early in the spring, we are now having a second bloom with an abundant yield of nectar. The report from Napa county promises a good yield. As I am not quite ready for extracting, I have to tier up my hives 3 or 4 stories. I use the Simplicity-Langstroth hive, and will commence extracting next week. I have been in the bee-business in California during the past 6 years, and for bloom, this season exceeds all former ones. The hills are a perfect flower-garden. Bees are working on the sage, which is something unusual for this time of the year. JNO. L. SECOR.

Monterey, Cal., July 23, 1884.

A Good Honey Flow.

The clover harvest was a poor one here, but we had a good flow of honey for about a week from June 12 to the 20. My bees then had the swarming fever till July 1. I had 45 swarms from 50 colonies. As my frames were all one size, I had no trouble to keep the increase down to 45, by taking out the brood-frames and returning the swarm. I returned some 18 swarms in that way. Those frames of brood I would give to the other new colonies, which would be a great help to them, and would keep all strong. On July 8, basswood bloomed, and up

to this time I did not have 200 pounds of comb honey finished. The bees now began to work as I never saw them work before. They were so heavily loaded that they dropped by the thousands all over the apiary, and I never before saw sections filled up so fast. I am using the two-pound section. I was able to give them room as fast as they needed it, and in two weeks time some of my colonies had 42 two-pound sections nearly all sealed over. I had one strong colony which I overlooked in tiering up, and to my surprise they had the whole brood-chamber filled with honey clear down to the ground, a distance of 8 inches. I then smoked the bees out and extracted the honey. The combs were built as straight as a board, and all was worker comb, so I fit them into frames. I have 5 strong nuclei, which I am now building up to full colonies, to make my number an even 80. I have now 3,000 pounds of capped comb honey, and about 1,000 pounds of uncapped. I expect to get most of the latter capped yet, as the pasture fields are again white with clover. Bee-keepers here are forcing the honey on the market at 10 and 12 cents per pound, but I am still holding my crop back for 15 cents per pound, and so far I have sold but 200 pounds at that price.

H. T. HARTMAN.

Freeport, Ill., July 28, 1884.

Not More than Half a Crop.

I have not yet seen any reports of the honey crop from this part of Kentucky. The spring was wet and cold until the middle of June. We have not more than half a crop of honey this season. I had 52 colonies, and increased them to 75, mostly by division. I have taken about 3,000 pounds of honey, the most of it being extracted. My bees are in good condition. WM. G. GOSNEY.

De Mossville, Ky., Aug. 3, 1884.

Good Honey Season.

I commenced with 9 colonies of bees, in the spring, and at this time I have 26, all in the Golden bee-hive. The honey season has been good here. I have sold all my honey at 16 $\frac{1}{2}$ cents per pound, in my home market. I have the Syrian bees, which are gentle and easy to handle, and I manage them without any smoke.

JESSE LOVELACE.

London, Ky., Aug. 5, 1884.

Discouraged but Determined.

I have been waiting patiently to make a good report, and here is what I have to say: I started with 148 colonies on May 1, 1884, and now have 300 colonies. They are mostly strong and ready for the fall crop, if there should happen to be one. Up to this time I have taken only about 200 pounds of honey—unfavorable weather being the cause of the failure of the white clover. Basswood was an entire failure. I, alone, have done all but one day's work in my apiary this season. I am looking for a good fall crop, as goldenrod looks well. Just

now I believe I would be satisfied with enough honey with which to winter my bees, and take my share next time. I have 2,000 lbs. of old honey which I can feed, if necessary. Early in the spring I reported that bees were wintering finely. The colonies in two cellars wintered well, while those in the other two, with little or no ventilation, lost about 90 per cent., thus making my spring and winter losses 129 colonies. Taking the whole season through (with me), it has been the most discouraging one I ever saw; nevertheless my boat is cut loose from shore, and I intend, in the near future, to land it well laden with both bees and honey. WM. LOSSING.

Hokah, Minn., Aug. 2, 1884.

Large Crop of Basswood Honey.

I notice in the last issue of the BEE JOURNAL, that basswood has been a failure in many localities; but here it has yielded a large crop of excellent honey. I am running two apiaries for comb honey, and another one of 45 colonies entirely for extracted honey; and they have already yielded over 100 pounds of white honey per colony. FRANK MCNAY.

Mauston, Wis., Aug. 1, 1884.

More Honey than for three years.

With us the white clover and basswood honey season is over. I have not yet taken the honey from the hives, but think that I will have more this year than all of the honey of the last three years put together. Recent heavy showers gives the buckwheat season a promising outlook at present. Natural swarming was very light—on an average only about one swarm in 10 colonies. H. S. SEE.

Geneva, Pa., July 31, 1884.

A Long Hive.

On page 164, W. H. S. Grout, of Kennedy, N. Y., says he has had 13 years experience producing extracted honey, and says he uses a 40-inch hive, etc. I wish he would detail his method of managing such a long hive, and state why he prefers it to the 2-story plan. TURNER BUSWELL.

Solon, Maine.

Wintering Bees—A Question.

It is a fact that an exceedingly strong colony of bees will, in severely cold weather, contract themselves into a cluster of 7 inches or less in each diameter. Such being the case, and I know it to be so by actual tests, can any one give me, or the fraternity at large, a logical and scientific reason why such a colony should winter with greater safety on a set of frames from 12 to 15 inches deep, than on a set which are only 9½ inches deep? Much discussion has been already made as to the relative safety of deep and shallow frames for wintering, but in none of the arguments made, have I seen anything touching on this point. It strikes me though, that the point is a vital one, and one that should be cleared up in a scientific manner. In answer to the above, I

do not care for theories, but I do desire an answer based on the true relations of heat and cold, and to the keeping up of an equable temperature artificially much higher than that with which we are surrounded.

Foxboro, Mass. J. E. POND, JR.

Authorship of the Pollen Theory.

Mr. A. A. Fradenburg, who lives a few miles from me, on the Tuscarawas river, has been very unfortunate in wintering, and theorized extensively as to the cause. I was much surprised to note his claim of priority of authorship of the pollen theory in a recent number of the BEE JOURNAL. The records will show, I think, that to Mr. J. M. Shuck belongs the honor of first conceiving that pollen is a factor in the causation of bee-diarrhoea. (See BEE JOURNAL, Vol. XVII, page 165.) His experiments go back to 1875. But to Mr. James Heddon belongs the honor of elucidating the pollen theory, the full history of which may be read in the latter numbers of that very valuable and first edition of the Weekly BEE JOURNAL for 1881. Mr. Heddon also made the first application of the theory. This is cheerfully conceded; and I feel certain that growing out of an amicable discussion of his theory, we shall, undoubtedly, come to the facts, ere long, as to the causes of bee-diarrhoea, and a complete solution of the problem of wintering bees.

G. L. TINKER, M. D.

New Philadelphia, Ohio.

What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

Rules for this Department.

1. Give your name and post-office address.
2. Be brief, and to the point.
3. Send no simple questions, such as are answered in the bee-books.
4. Ask only such questions as are of general interest.
5. This department is not intended for advertising any one's wares—therefore questions concerning the manufacture of goods for sale are not appropriate.
6. Direct all questions to the editor—

THOS. G. NEWMAN,

925 West Madison St., CHICAGO, ILL.

Removing Surplus Honey.

Will Mr. Heddon please answer the following question:

When do you remove the surplus honey from the cases? As soon as it is capped, or do you leave all the cases on until the end of the season? Myersville, Md. W. R. YOUNG.

ANSWER.—Always remove a case as soon as it is finished. If in that part of the season when the work is going on slowly, we often remove a case when some of the sections are still unfinished, and from 6 or 8 cases make up one of all unfinished combs and return it at once to the bees to be finished.

Weight of Extracted Honey.

On page 470, Mr. B. F. Carroll says, "The honey taken is very fine, weighing 12¼ pounds per gallon?" Which leads me to ask:

1. What is the weight, per gallon, of extracted honey?
2. Suppose I have a lot of thin extracted honey, to what weight, per gallon, should it be evaporated before it will be safe or fit to run into containers for sale?
3. How light weight, per gallon, will keep safely in sealed pails or fruit jars?
4. How heavy, per gallon, ought it to be when properly cured for market?
5. What do dealers in honey consider the proper weight, per gallon, of extracted honey?
6. Can you not give, in some article, the best method of curing unripe extracted honey on large and small scales, so as to suit the wants of all classes? TURNER BUSWELL.

Solon, Maine.

ANSWERS.—1. A very good article of extracted honey, that is, very well ripened, will weigh 12 pounds per gallon. Mr. Carroll's honey, which weighed 12¼ pounds, was, no doubt, very thick.

2. Not much short of 12 pounds per gallon.

3. That depends upon what is meant by "safely." Honey of any consistency rarely keeps its flavor as nicely in any other place as in the comb. Even at 12 pounds per gallon, honey will usually go far enough toward fermentation to take on a twang not often found with comb honey. If you wish your honey to remain of the smooth, oily flavor it contained when extracted from sealed combs, it should not fall short of 12 pounds per gallon, and 12½ is preferable.

4. I consider 12 pounds per gallon marketable honey for sauce purposes.

5. Dealers in honey, as a class, do not know as much about weights per gallon as producers do. Many of them buy honey for mechanical and cooking purposes.

6. In few words I will say that I consider leaving the honey in the combs until it is ripened, as the best way to get it in that condition, for those who produce it on a small scale. For those who produce it on a large scale, I think the laws of nature afford a cheaper method; but, as yet, I know of none sufficiently formulated that it is in use by bee-keepers in general. Our California bee-keepers are best posted regarding this matter.

Convention Notices.

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting on the third Tuesday in August, at Leroy Highbarger's, near Adaline, Ogle County, Ill.

J. STEWART, Sec.

☞ The Kentucky Bee-Keepers' Convention meets in Louisville, Ky., during the opening of the Exposition (day not fixed).

N. P. ALLEN, Sec.

Special Notices.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

When writing to this office on business, our correspondents should not write anything for publication on the same sheet of paper, unless it can be torn apart without interfering with either portion of the letter. The editorial and business departments are separate and distinct, and when the business is mixed up with items for publication it often causes confusion. They may both be sent in one envelope but on separate pieces of paper.

It must be understood that, should an advertiser desire to cancel an unexpired contract, he can do so only by paying regular rates for the number of insertions his advertisement has had.

In reply to many correspondents let us say that we take any kind of postage stamps as money, but coins should never be sent by mail, as it endangers the loss of the letter either by thieves, or else breaks through the envelope and is lost in that way.

We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails we will cheerfully send another, if notified before all the edition is exhausted.

Apiary Register—New Edition.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it. The prices will hereafter be as follows:

For 50 colonies (120 pages).....\$1 00
 " 100 colonies (220 pages)..... 1 25
 " 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

Do not let your numbers of the BEE JOURNAL for 1884 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

Create a Local Honey Market.

Now is the time to create Honey Markets in every village, town and city. Wide-awake honey producers should get the Leaflets "Why eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully all over the territory they can supply with honey, and the result will be a demand that will readily take all of their crops at remunerative prices. The prices for "Honey as Food and Medicine" are as follows:

Single copy 5 cts.; per doz., 40 cts.; per hundred, \$2.50. 500 will be sent postpaid for \$10.00; or 1000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Convention Hand-Book.

It is a nice Pocket Companion for bee-keepers. It is beautifully printed on toned paper, and bound in cloth—price 50 cents.

It contains a copy of a model "Constitution and By-Laws" for the formation of Societies for Bee-Keepers—a simplified manual of Parliamentary Law and Rules of Order for the guidance of officers as well as members, a blank form for making statistical reports—a Programme of questions for discussion at such meetings—model Premium Lists for Fairs which may be contracted or enlarged, and then recommended to the managers of adjacent County or District Fairs—32 blank leaves for jotting down interesting facts, etc.

We have aimed to make it suitable for any locality, and a book that will commend itself to every bee-keeper in the English-speaking world.

We have had some bound in Russia leather, with colored edges—price 60 cents.

We will supply them by the dozen at 25 per cent. discount, post-paid.

For \$2.75 we will supply the Weekly BEE JOURNAL one year, and Dzierzon's Rational Bee-Keeping, in paper covers; or the Monthly BEE JOURNAL and the book for \$1.75. Or, bound in cloth, with Weekly, \$3.00; with the Monthly, \$2.00.

A Canadian wishes us to state in the BEE JOURNAL, whether we take Canadian money for subscription or books. We do; and for fractions of a dollar, Canadian postage stamps may be sent.

Bingham Corner.

MARENGO, ILL., June 18, 1884.

The Doctor Subdues All.—Mr. T. F. BINGHAM, Dear Sir:—I've used the "Doctor" till its all daubed up with bee-glue, and although at first sight I thought I did not like anything so large, I could not now be induced except by the direst poverty, to do with any thing smaller. As a matter of "economy" I much prefer the "Doctor" to any of the cheaper smokers, of which I have worn out several. The "Doctor" has entirely cured me, so that I am now a Bingham man, as my wife always has been. If the somewhat vague remark in your letter means that nothing was charged for the Smoker sent, except the reading of your letter, I shall be very glad of another "Doctor" for the money sent, so that my wife won't take mine from me. Bees just booming on white clover.

Yours Truly, C. C. MILLER.

WOODARD'S LANDING, WASH. TER.
The Best Smoker.—To BINGHAM & HETHERINGTON, Abbronia, Mich. Dear Sirs:—Find enclosed money for 3 Conqueror Smokers, which please send per mail—one to each, Dr. Balch, J. M. Louderback, and H. A. Townner. The Conqueror is the best Smoker I ever used. Respectfully,
 May 17, 1884. H. HASTINGS.

DRESDEN, TEX., May 28, 1884.
Conquer the "Cyps."—T. F. BINGHAM, Abbronia, Mich. Dear Sir:—Enclosed find \$1.75, for which please send, per mail, one "Conqueror Smoker" to Major H. A. High, Waxahachie, Tex. He bought a Cypran Queen from me, and the Bees have worsted the old gentleman. I told him that the Conqueror Smoker would conquer the "Cyps," as I had tried one for two years, and "it never failed." Respectfully,
 B. F. CARROLL.

BORODINO, N. Y., Aug. 15, 1882.
Cyprians Conquered.—All summer long it has been "which and tother" with me and the Cypran colony of bees I have—but at last I am "boss." Bingham's Conqueror Smoker did it. If you want lots of smoke just at the right time, get a Conqueror Smoker of Bingham. Respectfully,
 G. M. DOOLITTLE.

Prices, by mail, post-paid.

Doctor smoker (wide shield).....3¼ inch.	\$2 00
Conqueror smoker (wide shield) 3 " "	1 75
Large smoker (wide shield).....2¼ " "	1 50
Extra smoker (wide shield).....2 " "	1 25
Plain smoker.....2 " "	1 00
Little Wonder smoker.....1¾ " "	65
Bingham & Hetherington Honey Knife,	
2 inch.....	1 15

TO SELL AGAIN, apply for dozen or half-dozen rates. Address,

T. F. BINGHAM, P. M., or
 BINGHAM & HETHERINGTON,
 ABRONIA, MICH.

Subscription Credits.—We do not acknowledge receipt of each subscription by letter. The label on your paper, or on the wrapper shows the date to which your subscription is paid. When you send us money, if the proper credit is not given you, within two weeks thereafter on your label notify us by postal card. Do not wait for months or years, and then claim a mistake. The subscription is paid to the end of the month indicated on the wrapper-label. This gives a continual statement of account.

We can supply photographs of Rev. L. L. Langstroth, the Baron of Berlepsch, or Dzierzon, at 25 cts. each.

GETTING UP CLUBS.

To increase the number of readers of the BEE JOURNAL, we believe, will aid progressive bee-culture and help to elevate the pursuit. We, therefore, offer the following premiums for getting up clubs:

While no subscription to the BEE JOURNAL will be taken for less than the regular advertised prices (viz.: Weekly, \$2.00; Monthly, \$1.00),—any one getting up a club of two copies, or more, may select from "OUR BOOK LIST" anything therein named, to the amount of 15 cents for every dollar they send direct to this office, to pay them for the trouble of getting up the club; and these books will be sent, postpaid, to any address desired.

For a club of 3 Weekly or 6 Monthly and \$6.00, we will make an additional present of a Pocket Dictionary, bound in cloth, containing 320 pages.

For a club of 5 Weekly or 10 Monthly, (or a mixed club of both,) with \$10, we will, in addition to the 15 per cent, present a copy of the AMERICAN "POPULAR" DICTIONARY, comprising every word in the English language that enters into speech or writing; it contains 32,000 words and phrases, 670 illustrations and 512 pages; it is nicely bound in cloth, and will be sent by mail, postpaid, to any address desired.

Subscriptions for two or more years for one person, will count the same as each year for a different person.

Advertisers' Opinions.

My advertisement in the BEE JOURNAL, has brought me over 400 responses. DR. G. L. TINKER.
New Philadelphia, O.

The queen business is rushing, and we think the BEE JOURNAL deserves much credit as an advertising medium. E. A. THOMAS & CO.
Colerain, Mass.

Having advertised in the AMERICAN BEE JOURNAL quite extensively for the past two years, I would say (without solicitation) that it has sold more queens for me than any other three periodicals I have ever tried.

My bees are in fine condition this spring. I have lost but 4 out of 182 colonies. The outlook is fine for a good season. L. J. DIEHL.
Butler, Ind.

The BEE JOURNAL does its advertising wonderfully well. It brought to me responses from Canada to the Gulf of Mexico, and from the Alleghanies to the Rocky Mountains. WM. M. ROGERS.
Shelbyville, Ky.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published SEMI-MONTHLY, at Seven Shillings per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. REV. H. R. PEEL, Editor.
LONDON, ENGLAND.

We send the Weekly AMERICAN BEE JOURNAL and the British Bee Journal, both for \$3.00 a year.

NEW
HONEY PAILS

The accompanying illustrations show a nest of pails with the sides tapering, for marketing extracted honey. The covers are deep and the pails are made with special reference to filling them for the retail honey-trade. They are made in a superior manner and are quite attractive in appearance, when filled and nicely labeled.

4 lb. 7 lb. 13 lb.
Per doz. \$1.25 \$1.60 \$2.00
Per 100 8.00 10.00 14.50

A. H. NEWMAN,
CHICAGO - ILL.

W. Z. HUTCHINSON,
Rogersville, Genesee Co., Mich.

Is now making a specialty of rearing fine Italian queens. All queens bred from the purest and best of mothers, and the cells built in full colonies. Single queens, \$1; 6 for \$5; 12 or more 75 cents each. Tested queens, \$1.50 each. Make money orders payable at Flint, Mich. 31Atf

Notice This!

After Aug. 20, I will send by return mail a beautiful tested Syrian or Italian Queen, and one of my combined Drone and Queen Traps, or a copy of the Bee-Keepers' Handy Book, on receipt of \$2.00; without book or trap, \$1.50 each. Warranted Queens, \$1.00 each; 6 for \$5.50; 12 for \$10. Select tested, \$3.00. Safe arrival guaranteed, by mail. HENRY ALLEY.
33Atf WENHAM, MASS.

BIND YOUR JOURNALS

AND KEEP THEM

NEAT and CLEAN.

The Emerson Binder

IS THE NEATEST AND CHEAPEST.

Any one can use them. Directions in each Binder.

For Monthly Bee Journal.....50c.
For Weekly Bee Journal.....75c.

Address, THOMAS G. NEWMAN,
925 West Madison Street, Chicago, Ill.

Given's Foundation Press.

PUBLIC SENTIMENT affirms that the PRESS is SUPERIOR for making Comb Foundation either in Wired Frames or for SECTIONS, and insures straight and perfect combs, when drawn out by the bees. Send for Circular and samples.

D. S. GIVEN & CO.

1ABtf HOOPESTON, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.



37A1y

Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.
ABtf J. VANDERVORT, Laceyville, Pa.

Deutsche Buecher,
Ueber Bienenzucht.

Bienen Kultur, oder erfolgreiche Behandlung der Bienen, von Thos. G. Newman. Dieses Pamphlet enthält Belehrungen über folgende Gegenstände: —Vortlichkeit des Bienenstandes— Honig pflanzen—Erziehung der Königin—Füttern—Schwärmen—Ableger—Versehen—Italienisieren—Zuflucht von Königinnen—Ausziehen—Bienen behandeln und beruhigen; weiter enthält es ein Kapitel, worin die neueste Methode für die Herrichtung des Honigs für den Handel beschrieben ist. Preis 40 Cents.

Honig als Nahrung und Medizin—von Thomas G. Newman. Dieses enthält eine klare Darstellung über Bienen und Honig des Alterthums; die Beschaffenheit, Qualität, Quellen und Zubereitung des Honigs für den Handel; Honig als Nahrungsmittel, angebend wie man Honigtuchen, Formküchlehen, Biddings, Schaumconfect, Weine, u.s.w. zubereiten kann; ferner Honig als Medizin mit vielen Rezepten. Es ist für den Consumenten bestimmt, und sollte vieltausendfältig über das ganze Land verbreitet werden. Preis 6 Cents.

Das Pferd und seine Krankheiten—Von V. J. Kendall, M. D., enthaltend ein alphabetisch geordnetes Verzeichniß der verschiedenen Pferdekrankheiten, sammt den Ursachen, Symptomen und der richtigen Behandlung derselben; ferner, eine Sammlung werthvoller Recepte. Preis 25 Cents.

THOMAS G. NEWMAN.

925 West Madison St. CHICAGO, ILL.

AGENTS wanted for The Lives of all the Presidents of the U. S. The largest, handsomest, best book ever sold for less than twice our price. The fastest selling book in America. Immense profits to agents. All intelligent people want it. Any one can become a successful agent. Terms free. HALLETT BOOK CO., Portland, Me. 4A1y

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

LOCAL REPORTERS WANTED.

We want an agent and local reporter in every community to represent City and Country, and furnish us from time to time such facts as we may require. Send 10 cents for credentials and full particulars regarding services and compensation. Address, Will C. Turner & Co., Publishers "City and Country," Columbus, Ohio. 24A18t

ITALIAN QUEENS, DADANT FOUNDATION, and Supplies.—It will pay you to send for Circular. E. F. SMITH, Smyrna, N. Y. 11Atf

BEESWAX.

I pay 28c. per pound delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

ALFRED H. NEWMAN,

923 West Madison St., CHICAGO, ILL.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

Syrian-Albino Queens!

My new Strain **AHEAD** of all. They build beautiful, straight Combs, **without Separators**, and are **UNEXCELLED** as workers. Reared by Alley's method.

Select-Tested, to breed from\$3.00
Untested\$1.50

Address, **DR. G. L. TINKER,**
30Atf New Philadelphia, Ohio.

\$66

a week at home. \$5.00 outfit free. Pay absolutely sure. No risk. Capital not required. Reader, if you want business at which persons of either sex, young or old, can make great pay all the time they work, with absolute certainty, write for particulars to H. HALLETT & Co., Portland, Maine.
4A1y

FLAT-BOTTOM COMB FOUNDATION.



high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook, Mont. Co., N. Y.

GOLD

for the working class. Send 10 cents for postage, and we will mail you free, a royal, valuable box of sample goods that will put you in the way of making more money in a few days, than you ever thought possible at any business. Capital not required. We will start you. You can work all the time or in spare time only. The work is universally adapted to both sexes, young and old. You can easily earn from 50 cents to \$5 every evening. That all who want work may test the business, we make this unparalleled offer; to all who are not well satisfied, we will send \$1 to pay for the trouble of writing us. Full particulars, directions, etc., sent free. Fortunes will be made by those who give their whole time to the work. Great success absolutely sure. Don't delay. Start now. Address **STINSON & Co.,** Portland, Maine.
4A1y

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Prices Reduced.

Owing to a decline in the price of Beeswax there will, hereafter, be a reduction of

2 cents per pound

on all orders for Comb Foundation,

ALFRED H. NEWMAN,

923 West Madison Street, Chicago, Ills.

Muth's Honey Extractor,

Square Glass Honey Jars, Tin Buckets, Langstroth Bee-Hives, Honey-Sections, etc.

Apply to **C. F. MUTH,**
976 and 978 Central Ave., CINCINNATI, O.
Send 10c. for Practical Hints to Bee-Keepers.

SYSTEMATIC AND CONVENIENT.



DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only\$18.00.

For sale by **ALFRED H. NEWMAN,**
923 West Madison Street, CHICAGO, ILL.



BUY AN ESTEY ORGAN

The Best in the World. 150,000 already made. In buying of us or through our Agent, you deal direct with the manufacturer. Write for Catalogue of **ESTEY and CAMP & CO. ORGANS,** Decker Bros., Mathushek, Simpson, Estey & Camp, and Camp & Co. **PIANOS. AGENTS WANTED.**

ESTEY & CAMP,
188 and 190 State St., CHICAGO.

EXCELSIOR HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, I have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the \$16.00 Extractor, 13x20, which is intended for any size of frame. Excepting with the \$8.00 Extractors, all the different styles have extractors over the canal leading to the honey gate, and movable sides in the Comb Baskets. The \$8.00 and \$10.00 Extractors have no covers.

For 2 American frames, 13x13 inches.....	\$8 00
For 2 Langstroth " 10x18 "	8 00
For 3 " " 10x18 "	10 00
For 4 " " 10x18 "	14 00
For 2 frames of any size, 13x20 "	12 00
For 3 " " 13x20 "	12 00
For 4 " " 13x20 "	16 00

ALFRED H. NEWMAN,

923 West Madison Street,
CHICAGO, ILLINOIS.

65 ENGRAVINGS.

THE HORSE, BY B. J. KENDALL, M. D.

A **TREATISE** giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents.—Sent on receipt of price, by

THOMAS G. NEWMAN,

925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

CHEAP

I offer 100 COLONIES of strong, healthy BEES for sale very cheap. Send for particulars to

32A2t H. J. SCHROCK, Goshen, Ind.

DR. FOOTE'S HAND BOOK OF HEALTH,

HINTS AND READY RECIPES,

is the title of a very valuable book that gives a great amount of information, of the utmost importance to Everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping, Bathing, Working, etc.

It Costs only **TWENTY-FIVE CENTS**, and contains 28 pages, and is sent by mail, post-paid, on receipt of price. This is just the Book that every family should have.

IT TELLS ABOUT

What to Eat, How to Eat it, Things to Do, Things to Avoid, Perils of Summer, How to Breathe, Overheating Houses, Ventilation, Influence of Plants, Occupation for Invalids, Superfluous Hair, Restoring the Drowned, Preventing Near-Sightedness,	Parasites of the Skin, Bathing—Best way, Lungs & Lung Diseases, How to Avoid them, Clothing—what to Wear, How much to Wear, Contagious Diseases, How to Avoid them, Exercise, Care of Teeth, After-Dinner Naps, Headache, cause & Malarial Affections, Croup—to Prevent.
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

IT TELLS HOW TO CURE

Black Eyes, Bolls, Burns, Chilblains, Cold Feet, Corns, Coughs, Cholera, Dandruff, Diarrhea, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts, Whooping Cough, Worms in Children.

It will Save Doctor Bills!

Price only 25 Cents. Sent by Mail, post-paid, by

THOMAS G. NEWMAN,

925 West Madison Street, CHICAGO, ILL.

DOUGHERTY & McKEE, Indianapolis, Ind.,

Manufacturers of and Dealers in **BEE-KEEPERS' SUPPLIES** and **HONEY.** Langstroth HIVES a Specialty. Dadant's Foundation, Bingham Smokers, Wired frames and Foundation from the Given Press, Sections, Extractors and Honey Jars. Send for our **Price List.** 14A26t

ELECTROTYPES

Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c.

THOMAS G. NEWMAN,
925 West Madison Street Chicago, Ill.

1868. 1884.
HEDDON'S
 COLUMN.

BEST GIVEN
COMB FOUNDATION.

Wholesale and Retail.

I now have on hand a freshly-made lot of GIVEN COMB FOUNDATION, made from strictly pure domestic wax, thoroughly cleansed from all impurities. Sizes of brood and surplus, $8\frac{1}{4} \times 16\frac{1}{4}$, or Langstroth size. I have also Dadant's best Brood Foundation of same size; also Dadant's 11x11 for American frames. Send for prices, and state amount wanted. I offer a liberal DISCOUNT to DEALERS.

HEDDON'S LANGSTROTH HIVE.

I believe my Hive is growing in popularity, to a much greater degree, than is the business of bee-keeping. I am now prepared to furnish these hives made up, and in the flat, at very reasonable prices.

One Hive complete for comb honey..\$3.00
 (The above will contain two cases complete with sections).

The above Hive complete for extracted honey.....\$3.00
 The above Hive complete for both in one 4.50
 One Hive in the flat..... 2.00
 Five or over, each 1.50

No one should ever order these Hives in the flat, without ordering one made up complete to work by. Parties are advertising Hives as Heddon Hives, that in no wise embrace my principles. Judge only by those purchased from me.

SECTIONS.

I am now ready to furnish white all-Dovetail Sections as follows: $4\frac{1}{4} \times 4\frac{1}{4} \times 6$, 7 and 8 to the foot, per 1,000, \$6.50; $5 \times 6 \times 2$, per 1,000, \$8.00. All shipped from here.

QUEENS!

Our New Strain,

Also IMPORTED ITALIANS!

Take your choice. Prices:

Tested, to breed from.....\$ 3 00
 Untested 1 25
 Untested, after July 1st..... 1 00
 Untested, (per doz.) after July 1st..... 11 00

CIRCULAR for 1884

And be SURE to state whether or not you have my Circular for 1883.

Address,

JAMES HEDDON,
 DOWAGIAC, Cass County, MICH.

Sixth Thousand Just Published!

New and Enlarged Edition
 OF
BEES and HONEY,
 OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS C. NEWMAN.

Editor of the Weekly Bee Journal.

925 West Madison Street, Chicago, Ill.

It contains 230 profusely illustrated pages, is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the Honey-Bee, and at the same time produce the most honey in its best and most attractive condition.

PRICE—Bound in cloth, \$1.00; in paper covers, 75 cents, postpaid.

A Liberal Discount to Dealers, by the Dozen or Hundred.

A NEW BEE-VEIL.



ere are five cross united by a rivet ugh their center at the top. These bars are buttoned on to studs on the neck-band. The bars are of best light spring steel; the neck-band of best hard spring brass; the cover is of handsome light material. It is very easily put together, no trouble to put on or take off, and folds compactly in a paper box 6×7 inches by one inch deep. There would be no discomfort in wearing it either day or night, and the protection against Mosquitoes, Flies, Bees, Gnats, etc., is perfect. The weight of the entire Veil being only five ounces. Price, by Mail or Express, \$1.00.

ALFRED H. NEWMAN,

923 West Madison Street, Chicago, Ill.

A PRIZE.

Send six cents for postage, and receive free a costly box of goods which will help you to more money right away than anything else in this world. All of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address, TRUE & Co., Augusta, Maine. 4A17

J. W. ECKMAN,

DEALER IN

Pure Italian Bees and Queens

For further information, send for Circular.

7A1y RICHMOND, Fort Bend Co. TEXAS.

GOLDEN ITALIANS!

I now wish to say to my former customers, that I am now ready to fill orders for the following Queens.

Hybrid in May and June, each....\$.50
 Italian—untested—not warranted, in May and June, each..... 1.00
 Italian—warranted, May and June, each..... 1.50
 Italian—tested Queen 2.50
 Full colonies of Hybrids..... 7.00
 Full colonies of Italians..... 10.00

20A1f **L. J. DIEHL, Butler, Ind.**

BEE-KEEPERS, before ordering your
BEE APIARIAN SUPPLIES,

Send for our large illustrated Catalogue, sent free to any address.
 10A24t **E. KRETCHMER, Coburg, Iowa.**

50 TONS

OF COMB HONEY WANTED.

Believing it to be advantageous to both seller and buyer to deal with the same parties year after year, we have for several years bought the entire honey crop of many bee-keepers. In view of our increasing trade, we wish to add to our list of producers, the names of a few more reliable men whose honey crop is from one to ten or more tons yearly. Through the actions of certain bee-keepers, the trade now demands mostly one-pound sections. We pay spot cash at railroad station for what we buy. Those desirous of becoming acquainted with such dealers, will state how much honey they have of each size section. How much of each quality. How soon the whole or part of it can be in shipping order. Name lowest cash price, and say how much more is in your locality. If answer is favorable, we will call on you. York State, Michigan, or Vermont preferred. Address,

F. I. SAGE & SON, Wethersfield, Conn.
 31A4t

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

IF YOU WANT

—A—

VEHICLE,

SEND A POSTAL CARD TO THE

COLUMBUS BUGGY CO.

COLUMBUS, OHIO.

When Catalogue and name of nearest dealer, where our SUPERIOR Vehicles can be seen, will be sent.

We have the LARGEST FACTORY in the world for manufacturing first-class and SUPERIOR

Buggies, Phaetons, Light Carriages, Surrey Wagons,



AND OUR POPULAR

American Village Carts,

the latter most perfect and free from horse motion.

We make our own wheels from the best timber (sawed by our own mills) that can be obtained from the hills of Southern Ohio—famous for the second-growth hickory.

Any of our readers who will inclose 18 cent stamps, in a letter to the COLUMBUS BUGGY CO., Columbus, Ohio, will receive in return a beautiful engraving in colors representing an "Australian Scene," and their manner of traveling in that country with ostriches as a motor. 24A18t

For Bees, Queens.

Honey, Foundation, Hives, Sections, and all Apiarian Implements, send for Circular to

FLANAGAN & ILLINSKI,
 1A1By Lock box 995, Belleville, St. Clair Co., Ills.